SOUTHEAST ALASKA POWER AGENCY

Regular Board Meeting
AGENDA

(To be held Electronically[1])

September 30, 2020 SEAPA BOARD MEETING		
Time	**Event**	
9 AM	Meeting Starts	**For telephonic participation dial:**
10:30 AM	15-Minute Break	
12 Noon	Lunch	**1.888.475.4499[2] or 1.877.853.5257**
1 PM	Meeting Resumes	**Meeting ID No. 941 4257 4379**
2:30 PM	15-Minute Break	
5 PM	Meeting Adjourns	

1. Call to Order
- A. Roll Call
- B. Communications/Lay on the Table Items
- C. Disclosure of Conflicts of Interest

2. Approval of the Agenda

3. Persons to be Heard

4. Review and Approve Minutes
- A. June 30, 2020 Minutes of Regular Board Meeting
- B. August 17, 2020 Minutes of Special Board Meeting
- C. September 4, 2020 Minutes of Special Board Meeting

5. Financial Reports
- A. CEO Financial Memo
- B. Controller Memo
- C. kWh Graph
- D. Fund Graph
- E. Grant Summary
- F. Financial Statements
- G. Disbursements

6. Old Business
- A. Community Covid-19 Updates
- B. Capital Planning Review Process

[1] Due to recommendations from the Center for Disease Control and its social distancing guidelines, this meeting of the Board of Directors of the Southeast Alaska Power Agency will be held electronically.
[2] In the event of a failure with Zoom connectivity, the meeting shall continue by telephonic participation by dialing 1.800.315.6338 (Code 73272#).

7. New Business

A. Consideration and Approval of R&R Project and Increase to FY2020 R&R Budget Re Submarine Cable - Woronkofski
B. Consideration and Approval of Contract Award Re 2021-2023 Annual Transmission Line Maintenance Contract
C. Consideration and Approval of Recruitment and Hiring Re Hydro Communications/SCADA Networking Engineer
D. Discussions Re CEO Annual Review

8. CEO Report

9. Staff Reports

A. Power System Specialist *(Schofield)*
B. Director of Engineering and Technical Services *(Siedman)*
C. Operations Manager *(Hammer)*

10. Next Meeting Dates

11. Director Comments

12. Adjourn

Southeast Alaska Power Agency
Meeting Minutes

Location: Held Telephonically[1]

Date: June 30, 2020

Time: 9:00 a.m. AKDT

Agenda Items

1) Call to Order

A. *Roll Call*.

Chairperson Lynn called the regular meeting to order at 9:00 a.m. AKDT on June 30, 2020. The following directors and alternates were present, thus establishing a quorum of the board:

Directors	Present *Telephonic (T) In Person (IP)*	Alternates	Present *Telephonic (T) In Person (IP)*	Representing	
Karl Amylon	T	Jeremy Bynum	T	Swan Lake	Ketchikan
Bob Sivertsen	T	Cliff Skillings	T	Swan Lake	Ketchikan
Bob Lynn	T	Tor Benson	T	Tyee Lake	Petersburg
Robert Larson	T	Karl Hagerman	T	Tyee Lake	Petersburg
Stephen Prysunka	T	Lisa Von Bargen	T	Tyee Lake	Wrangell

The following SEAPA staff and counsel were present for all or part of the meeting:

Staff	Present *Telephonic (T) In Person (IP)*	Staff/Counsel	Present *Telephonic (T) In Person (IP)*
Trey Acteson, CEO	T	Joel Paisner, SEAPA Counsel	T
Clay Hammer, Operations Mgr.	T	Kay Key, Controller	T
Ed Schofield, Power Sys. Sp.	T	Sharon Thompson, EA/CA	T
Robert Siedman, Dir. Eng & TS	T	Marcy Hornecker, Admin. Asst.	T

B. *Communications/Lay on the Table Items* - None

C. *Disclosure of Conflicts of Interest* - None

2) Approval of the Agenda

➢ ***Motion***	M/S (Larson/Prysunka) to approve the agenda as presented. Motion approved unanimously by polled vote.	✓ **Action 20-820**

3) Persons to be Heard - None

[1] The meeting was held telephonically due to recommendations from the Center for Disease Control and its social distancing guidelines. An audio recording of this meeting is available on SEAPA's website at www.seapahydro.org

4) Review and Approve Minutes

➢ *Motion*	M/S (Larson/Prysunka) to approve the minutes of the regular meeting of March 31, 2020. Motion approved unanimously by polled vote.	✓ Action 20-821

5) Financial Reports

➢ *Motion*	M/S (Sivertsen/Prysunka) to accept year-to-date financial statements through May 2020 and disbursements for March, April, and May totaling $1,492,054.80, as presented. Mr. Acteson discussed the Agency's current financial position. Concern was expressed about the effects on SEAPA revenues resulting from the lack of tourism in Ketchikan. Following further review of revenues and expenses, R&R project expenditures, grants, financial statements and disbursements, the motion was approved unanimously by polled vote.	✓ Action 20-822

6) Old Business

A. *Update on SEAPA 2020 Operations Plan*

Mr. Siedman reported that lower draft limits approved by the Board in March to mitigate water shortages were not required due to snow runoff that started in April and ended in May. The runoff resulted in draft limits returning to their original levels of 1280ft and 277ft respectively for Tyee and Swan Lakes. SEAPA anticipates the levels at both lakes will continue to rise for the remainder of the 2020 inflow season after the reports of snow surveys performed in May and early June showed that both lakes' drainage basins have a snowpack that is near an average year.

B. *Consideration and Approval of SEAPA Strategic Plan*

➢ *Motion*	M/S (Prysunka/Sivertsen) to adopt the Southeast Alaska Power Agency's 2020-2022 Strategic Plan presented at SEAPA's June 30, 2020 Regular Board Meeting. Mr. Acteson summarized the key areas of the Strategic Plan which culminated in requested amendments to the following two statements in the Plan: • A change in Section II (Power Supply) (B. Topic: Diesel Protocol), fourth bulleted item under "Situation" that states: "Diesel is expensive and dirty" shall be changed to: "Diesel is non-renewable and less environmentally friendly." • A deletion of the two words "Try to" in Section II (Power Supply) (B. Topic: Diesel Protocol), Item *d.* under "Board Goals" that states: "Try to determine SEAPA's role in managing diesel use" shall be changed to: "Determine SEAPA's role in managing diesel use." Following a consensus that the two statements are an amendment to the Plan, the motion was approved unanimously by polled vote.	✓ Action 20-823

The Chair requested a motion on the Agency's new mission statement.

➢ *Motion*	M/S (Sivertsen/Larson) to rescind the motion adopting the Agency's existing Mission Statement approved at the Special Board Meeting held on January 17, 2013 which states: "*SEAPA's Mission is to provide the lowest wholesale power rate consistent with sound utility planning and business practices. We exist for the long-term benefit of our member utilities and the rate payers, providing unified regional leadership for project development and prudent management of our interconnected power system"* and further move to adopt the following	✓ Action 20-824

	New Mission Statement: "*SEAPA's mission is to safely provide clean, reliable, low-cost wholesale power to the communities we serve.*" Following discussion on whether a change should be considered to add management and development of varied renewable energy sources, it was determined the suggested additional language would be more appropriate under the Agency's Organizational Statements. The motion was approved unanimously by polled vote.

The Chair requested a motion and second on the Agency's Organizational Statements.

➢ ***Motion***	M/S (Sivertsen/Prysunka) to adopt the following Organizational Statements:	✓ **Action 20-825**

Organizational Statements	
Who We Are:	*A regional joint action agency established as an energy resource for our member communities in Southeast Alaska.*
What We Do:	*Manage and operate two hydroelectric projects (Tyee Lake & Swan Lake) and the transmission assets that supply power to the communities of Ketchikan, Petersburg, and Wrangell.*
What We Value:	*Safely providing low-cost, dependable service with efficiency and integrity to our communities through the transparent collaboration of dedicated employees.*
What We Aspire to Become:	*The trusted provider for energy and energy-related services that our Members require.*

Following discussion on possible changes to language in the Organizational Statements a consensus was reached to table the motion to a later time in the meeting to provide additional time for wordsmithing. The Chair directed that the meeting would move on to Item A under New Business in the Agenda.

7) New Business

A. *Consideration and Approval of Audited Financial Statements for Six-Month Fiscal Year Period ending December 31, 2019*

➢ ***Motion***	M/S (Sivertsen/Prysunka) to accept the Southeast Alaska Power Agency Audited Financial Statements for the six-month period ending December 31, 2019 as presented in the June 30, 2020 SEAPA board meeting.	✓ **Action 20-826**

Joy Merriner, BDO USA, LLP's Assurance Partner, auditor of SEAPA's financial statements, joined the meeting telephonically to present a summary of the Agency's audited financial statements and respond to director's questions and comments. She reported a clean audit with no areas of concern noting the biggest change was the change in the Agency's fiscal year end from June 30 to December 31st. A recommendation was that the Agency institute an annual inventory plan or policy and keep an inventory log. Mr. Acteson thanked Ms. Merriner and her team and recognized the Agency's Controller, Kay Key, for her hard work resulting in continuous successful audits.

A vote was taken and unanimously approved on the motion to accept the Audited Financial Statements for the six-month period ending December 31, 2019 as presented.

The meeting recessed at 10:20 a.m. and resumed at 10:35 a.m.

6) Old Business (continued)

The Chair announced the meeting will resume under Item 6B of Old Business in the Agenda to continue the discussion on changes to the Agency's Organizational Statements. Following much discussion on initial suggestions by Director Benson, Director Hagerman with input from several directors and staff, penned written suggestions for amendments to the Organizational Statements.

➢ ***Motion***	M/S (Sivertsen/Prysunka) to amend the motion regarding the Organizational Statement in response to "**What We Aspire to Become**" from "*The trusted provider for energy and energy-related services that our Members require*" to "*The leading regional developer of additional energy resources and energy-related services as required by the member communities*". Mr. Acteson interjected suggesting the motion also include a previously discussed change in response to "What We Value" from "*Safely providing low-cost, dependable service with efficiency and integrity to our communities through the transparent collaboration of dedicated employees"* to "*Safely providing low-cost, dependable renewable energy and service with efficiency and integrity to our communities through the transparent collaboration of dedicated employees".* The Chair and several directors voiced consensus that the amendment include the additional change. The motion to amend was unanimously approved by polled vote.	✓ **Action 20-827**

Mr. Acteson noted a vote was necessary on the tabled motion adopting SEAPA's Organizational Statements in the Strategic Plan, as amended. A polled vote was taken and passed unanimously on the tabled motion adopting SEAPA's Organizational Statements in the Strategic Plan, as amended.

7) New Business (continued)

The Chair announced the meeting would move back to New Business and requested a motion for Item B.

B. *Consideration and Approval of Contract and Increase to FY2020 R&R Budget for Swan Lake Station Service Switchgear Project*

➢ ***Motion***	M/S (Prysunka/Sivertsen) to authorize staff to enter into a Contract with Electric Power Constructors, Inc. for SEAPA's R&R Project 19314 for the Swan Lake Station Service Switchgear Contract for the lump-sum bid amount of $1,701,017 and further authorize a 5% contingency of $85,051 for a total not-to-exceed amount of $1,786,068. The motion was unanimously approved by polled vote.	✓ **Action 20-828**

C. *Consideration and Approval of Sole Source Contract & Increase to FY2020 R&R Budget Re Carroll Inlet Marker Ball Tie Wrap Replacement Project*

➢ ***Motion***	M/S (Sivertsen/Larson) to increase SEAPA's FY2020 R&R Budget by $95,250 for the Carroll Inlet Marker Ball Tie Wrap Replacement Project. The motion was unanimously approved by polled vote.	✓ **Action 20-829**
➢ ***Motion***	M/S (Sivertsen/Prysunka) to authorize staff to enter into a sole source contract with Electric Power Constructors, Inc. for SEAPA's Carroll Inlet Marker Ball Tie Wrap Replacement Project for the not-to-exceed value of $88,618. The motion was unanimously approved by polled vote.	✓ **Action 20-830**

D. *Consideration and Approval of R&R Project and Increase to FY2020 R&R Budget Re Tyee Lake Cooling Water Pumps*

➢ ***Motion***	M/S (Larson/Sivertsen) to increase SEAPA's FY2020 R&R Budget by $65,900 for the Tyee Lake Cooling Water Pump Replacement Project. The motion was unanimously approved by polled vote.	✓ **Action 20-831**

E. *Executive Session Re Submarine Cable Replacement Project*

➢ ***Motion***	M/S (Prysunka/Larson) to recess into an Executive Session to be conducted pursuant to SEAPA's Bylaws consistent with Alaska Statute 44.62.310 for discussions on the bid results of the Agency's Submarine Cable Replacement Project, which is a matter the immediate knowledge of which would clearly have an adverse effect on the finances of the Agency, the Projects, or any of the Member Utilities represented on the Board. The motion was unanimously approved by polled vote.	✓ **Action 20-832**

The meeting recessed at 11:10 for the executive session. The executive session ended at 12:37 p.m. The meeting resumed at 12:43 p.m. into regular session. The Chair announced that the meeting was reconvening from the executive session into regular session and requested a motion on the Agency's Submarine Cable Replacement Contract resulting from executive session discussions.

➢ ***Motion***	M/S (Sivertsen/Larson) to authorize staff to issue a notice of intent to award and enter into contract negotiations with Sumitomo Electric USA, Inc. to negotiate the lowest cost acceptable to SEAPA for SEAPA's Submarine Cable Replacement Contract and in the event negotiations are unsuccessful, staff is authorized to enter into contract negotiations with the next recommended bidder in line for consideration. The motion was unanimously approved by polled vote.	✓ **Action 20-833**

The meeting recessed for lunch at 12:45 p.m. and resumed at 1:35 p.m. in regular session.

The Chair requested a roll call. All were present except Directors Amylon and Sivertsen. Mr. Bynum advised that Mr. Amylon would not be able to rejoin the meeting. The Chair announced we have a quorum and requested that the meeting proceed with the CEO report.

8) CEO Report

Mr. Acteson announced his report which is available in the board packet will be brief. He provided updates on actions the Agency had taken in response to Covid-19, the Agency's active engagement on hydro related licensing and regulatory reform, the Alaska Department of Natural Resources Reclamation Fund, External Industry Activities, Agency best practices and process improvements, hydrosite investigations, and announced that all of the Agency's regular budgeted full-time positions were currently filled along with a seasonal brushing technician.

9) Staff Reports[2]

A. *Director of Engineering and Technical Services (Siedman)*

Mr. Siedman provided brief highlights of his report including Tyee and Swan Lake Snow Surveys, a brief history and recommendation of contract award on the Swan Lake Station Service Switchgear Project, and an update on the Stikine Crossing Submarine Cables. He noted an extensive list of completed tasks and path forward pertaining to the faulted cable is available in the board packet. Mr. Siedman closed with an announcement that the Tyee 125V

[2] Director Sivertsen rejoined the meeting at approximately 1:55 p.m.

Battery Bank Project engineering and procurement were completed in-house resulting in significant savings to the Agency.

B. *Operations Manager (Hammer)*

Mr. Hammer provided updates on the Tyee Road Access to Tidewater Project, announced that Svendsen replaced both Mercury 350 HP Motors on the Agency's 34' Svendsen utilized at Tyee, discussed the results of a Spring transmission line survey, and advised the contracted work to Gage Tree Service of Wasilla, Alaska, for the Mitkof Island and Neets Bay area brushing work was currently on hold due to the Covid-19 pandemic. He reported that a long-time provider of aviation services, Tyler Robinson, was retiring after providing over 2,000 trips in support of SEAPA's Tyee and Swan Lake facilities. He commended Mr. Robinson for his 30+ years of services hauling passengers and freight to the plants. He noted several tasks completed by the Tyee crew which is available in the board packet.

C. *Power System Specialist (Schofield)*

Mr. Schofield discussed the Agency's computerized maintenance management system (MAPCON) noting that the program dictates most of the two plants' daily scheduled maintenance activities. He provided a list of current special projects in various stages of progress at Swan Lake and brief updates of the Swan Lake Stuffing Box Repair, Four-Plex Housing, and Tyee Lake Intake Gate and Intake Gate HPU Reconditions Projects. He noted several photographs of the various projects are available in the board packet.

Director Sivertsen requested a deviation in the Agenda to discuss bonding, funding, and debt service for replacement of the Agency's faulted submarine cable and SEAPA office building. There was no action taken following discussions on the various options that may be available.

10) Next Meeting Dates

There were no objections to holding the next regular meeting on September 30, 2020 electronically and evaluating during the September meeting whether the December 10, 2020 meeting would be held electronically or in person.

11) Director Comments

Directors exchanged various comments discussing Covid-19 repercussions in the communities, encouraged support for local suppliers, and expressed thanks to staff.

12) Adjourn

➢ ***Motion***	M/S (Sivertsen/Larson) to adjourn the meeting. The motion was unanimously approved by polled vote.	✓ **Action 20-834**

Signed: ***Attest:***

Secretary/Treasurer **Chairperson**

Southeast Alaska Power Agency
Special Meeting Minutes

Location: Held Telephonically[1]

Date: August 17, 2020

Time: 3:00 p.m. AKDT

Agenda Items

1) Call to Order

A. ***Roll Call.***

Chairperson Lynn called the special meeting to order at 3:00 p.m. AKDT on August 17, 2020. The following directors and alternates were present, thus establishing a quorum of the board:

Directors	Present *Telephonic (T) In Person (IP)*	Alternates	Present *Telephonic (T) In Person (IP)*	Representing	
Karl Amylon	T	Jeremy Bynum	T	Swan Lake	Ketchikan
Bob Sivertsen	T	Cliff Skillings		Swan Lake	Ketchikan
Bob Lynn	T	Tor Benson		Tyee Lake	Petersburg
Robert Larson	T	Karl Hagerman		Tyee Lake	Petersburg
Stephen Prysunka		Lisa Von Bargen	T	Tyee Lake	Wrangell

The following SEAPA staff and counsel were present for all or part of the meeting:

Staff	Present *Telephonic (T) In Person (IP)*	Staff/Counsel	Present *Telephonic (T) In Person (IP)*
Trey Acteson, CEO	T	Joel Paisner, SEAPA Counsel	T
Clay Hammer, Operations Mgr.	T	Kay Key, Controller	T
Ed Schofield, Power Sys. Sp.	T	Sharon Thompson, EA/CA	T
Robert Siedman, Dir. Eng & TS	T	Marcy Hornecker, Admin. Asst.	T

2) Approval of the Agenda

➢ ***Motion***	M/S (Larson/Sivertsen) to approve the agenda as presented. Motion approved unanimously by polled vote.	✓ **Action 20-835**

3) New Business

A. ***Consideration and Approval of Tyee HPU Relocation and Intake Gate Refurbishing Contract***

[1] The meeting was held telephonically due to recommendations from the Center for Disease Control and its social distancing guidelines.

➢ *Motion*	M/S (Sivertsen/Von Bargen) to authorize staff to enter into a Contract with BAM LLC for SEAPA's Tyee Lake Intake Gate Hydraulic Unit (HPU) Relocation and Intake Gate Refurbishing Contract for the lump-sum bid amount of $128,500 and further authorize a 10% contingency of $12,850 for a total not-to-exceed amount of $141,350. The motion was approved unanimously by polled vote.	✓ Action 20-836

B. ***Executive Session Re Contract Negotiations Update Re Submarine Cable Replacement Project***

➢ *Motion*	M/S (Sivertsen/Von Bargen) to recess into Executive Session to be conducted pursuant to SEAPA's Bylaws consistent with Alaska Statute 44.62.310 for an update on the Agency's negotiations regarding its Submarine Cable Replacement Contract, the immediate knowledge of which would clearly have an adverse effect upon the finances of the Agency, the Projects, or any of the Member Utilities of the Board. Motion approved unanimously by polled vote.	✓ Action 20-837

The meeting recessed at 3:13 p.m. for the executive session and reconvened in regular session at 4:16 p.m.

4) Adjourn

Chairperson Lynn announced the executive session was complete and requested a motion to adjourn.

➢ *Motion*	M/S (Larson/Sivertsen) to adjourn. The Chair declared the meeting adjourned after hearing several ayes.	✓ Action 20-838

The meeting adjourned at 4:17 p.m.

Signed: ***Attest:***

Secretary/Treasurer **Chairperson**

Southeast Alaska Power Agency
Special Meeting Minutes

Location: Held Telephonically[1]

Date: September 4, 2020

Time: 10:00 a.m. AKDT

Agenda Items

1) Call to Order

A. ***Roll Call.***

Chairperson Lynn called the special meeting to order at 10:00 a.m. AKDT on September 4, 2020. The following directors and alternates were present, thus establishing a quorum of the board:

Directors	Present *Telephonic (T)* *In Person (IP)*	Alternates	Present *Telephonic (T)* *In Person (IP)*	Representing	
Karl Amylon		Jeremy Bynum	T	Swan Lake	Ketchikan
Bob Sivertsen	T	Cliff Skillings		Swan Lake	Ketchikan
Bob Lynn	T	Tor Benson		Tyee Lake	Petersburg
Robert Larson	T	Karl Hagerman		Tyee Lake	Petersburg
Stephen Prysunka	T	Lisa Von Bargen	T	Tyee Lake	Wrangell

The following SEAPA staff and counsel were present for all or part of the meeting:

Staff	Present *Telephonic (T)* *In Person (IP)*	Staff/Counsel	Present *Telephonic (T)* *In Person (IP)*
Trey Acteson, CEO	T	Joel Paisner, SEAPA Counsel	T
Clay Hammer, Operations Mgr.		Kay Key, Controller	T
Ed Schofield, Power Sys. Sp.		Sharon Thompson, EA/CA	T
Robert Siedman, Dir. Eng & TS	T	Marcy Hornecker, Admin. Asst.	

2) Approval of the Agenda

➢ ***Motion***	M/S (Sivertsen/Larson) to approve the agenda as presented. Motion approved unanimously by polled vote.	✓ **Action 20-839**

3) Old Business

A. ***Executive Session Re Contract Negotiations Update Re Submarine Cable Replacement Project***

[1] The meeting was held telephonically due to recommendations from the Center for Disease Control and its social distancing guidelines.

➢ ***Motion***	M/S (Sivertsen/Von Bargen) to recess into Executive Session to be conducted pursuant to SEAPA's Bylaws consistent with Alaska Statute 44.62.310 for an update on the Agency's negotiations regarding its Submarine Cable Replacement Contract, the immediate knowledge of which would clearly have an adverse effect upon the finances of the Agency, the Projects, or any of the Member Utilities of the Board. The motion was approved unanimously by polled vote.	✓ **Action 20-840**

The meeting recessed at 10:03 a.m. for the executive session and reconvened at 11:25 a.m. in regular session. The Chair requested a roll call after reconvening. There were no changes in attendance from the roll call taken when the meeting was initially called to order.

The Chair announced that staff updated the Board on the estimated cost of cable replacement and interim funding of the Submarine Cable Replacement Project in executive session, and that staff was given direction and now seeks to award a contract to Sumitomo Electric U.S.A., Inc. He noted it is also prudent that staff be authorized to proceed with bonding initiatives in the event the Board elects to seek bonding for the project at a future date and that staff will also need authorization to draw on SEAPA's self-insured risk fund, rate stabilization fund, dedicated R&R fund, and revenue fund, in that order, for interim funding of the project. He requested a motion for contract award and to proceed with bonding initiatives:

B. ***Consideration and Approval of Submarine Cable Replacement Contract***

➢ ***Motion***	M/S (Prysunka/Larson) to authorize staff to enter into a Contract with Sumitomo Electric U.S.A., Inc. for SEAPA's Submarine Cable Replacement Contract for the lump-sum amount of $9,217,920 plus $2,482,400 for time and materials deliverables for a total of $11,700,320, and authorize a 10% contingency of $1,170,032 and $500,000 for SEAPA project-related expenditures for a total of $13,370,352 and further authorize staff to proceed with bonding initiatives in the event the Agency elects to seek bonding for the project at a future date. Motion approved unanimously by polled vote.	✓ **Action 20-841**

The Chair requested a motion for staff authorization to draw on interim funding for the project.

➢ ***Motion***	M/S (Sivertsen/Prysunka) to authorize staff to draw on the following SEAPA funds as needed for interim funding of SEAPA's Submarine Cable Replacement Contract and SEAPA project-related expenditures in the following order: (1) Self Insured Risk Fund (2) Rate Stabilization Fund (3) Dedicated R&R Fund (4) Revenue Fund Motion approved unanimously by polled vote.	✓ **Action 20-842**

4) New Business

A. ***Consideration and Approval of SEAPA 2021 Administrative Employee Group Benefits***

➢ ***Motion***	M/S (Sivertsen/Prysunka) to renew the NRECA 2021 employee group benefit plans and Administrative Employee Benefits as presented. Following an overview of the group benefits by Mr. Acteson and a brief discussion of options within components of the Agency's plan, the motion was approved unanimously by polled vote.	✓ **Action 20-843**

5) Adjourn

The Chair solicited comments and discussion from the Board. A variety of comments were exchanged on the submarine cable project including whether board members could observe the project in process, funding, and whether the Agency's December board meeting could be held in person.

Following the exchange of comments, the Chair requested a motion to adjourn.

➢ *Motion*	M/S (Sivertsen/Larson) to adjourn. The Chair declared the meeting adjourned after hearing several ayes.	✓ Action 20-844

The meeting adjourned at 12:01 p.m.

Signed: ***Attest:***

_____ _____

Secretary/Treasurer **Chairperson**

SOUTHEAST ALASKA POWER AGENCY
CEO FINANCIAL COVER MEMO

DATE: September 23, 2020

TO: SEAPA Board of Directors

FROM: Trey Acteson, Chief Executive Officer

SUBJECT: CEO Financial Cover Letter

SEAPA's financial position is stable at the moment, but actions will be required over the next year to service new submarine cable replacement debt and cover increases in operational expenses experienced over the past 23 years. SEAPA has not had a rate increase during this lengthy period, but its role has increased substantially, and overhead costs have consistently trended upward.

Reservoirs have fully recharged and we have been spilling at both reservoirs starting on July 24th. Somewhat counterintuitive, when hydro resources are "overly" abundant, SEAPA sales often trend lower because Ketchikan and Petersburg are able to lean heavier on their own hydro resources. As shown in the financial packet, sales early in the year were robust and have since trended lower.

REVENUE & EXPENSES: Revenue from sales through the end of August was $7,414,288 actual vs. $7,528,652 budget. Contrasted to last year's sales of $4,976,712 for the same period, it provides a clear illustration of the extreme revenue volatility that the Agency periodically experiences. This underscores the necessity for the Agency to maintain operating reserves.

Expenses through the end of August were $3,944,812 actual vs. $4,887,995 budget. The disparity can be partially attributed to annual maintenance activities shifting into September, which will be reflected when we report September/October financials. Additionally, COVID 19 impacts have delayed some planned expense work, and halted most travel and training.

RENEWAL & REPLACEMENT PROJECTS: Total R&R expenditures through the end of August were $1,246,800 actual vs. $3,735,483 total annual budget. Staff is actively working on several R&R projects and I expect these expenditures to be reflected in subsequent months. Staff reports in your packets provide updates on current projects.

The Stikine Submarine Cable Replacement Project is listed under new business for Board consideration to transition it from feasibility to a R&R project. Contract conformance is still in-progress.

GRANTS: The Agency has one open grant, the FY13 DCCED, with an open balance at the end of June totaling $341,176. The grant expires June 30, 2021.

SOUTHEAST ALASKA POWER AGENCY

CONTROLLER MEMO

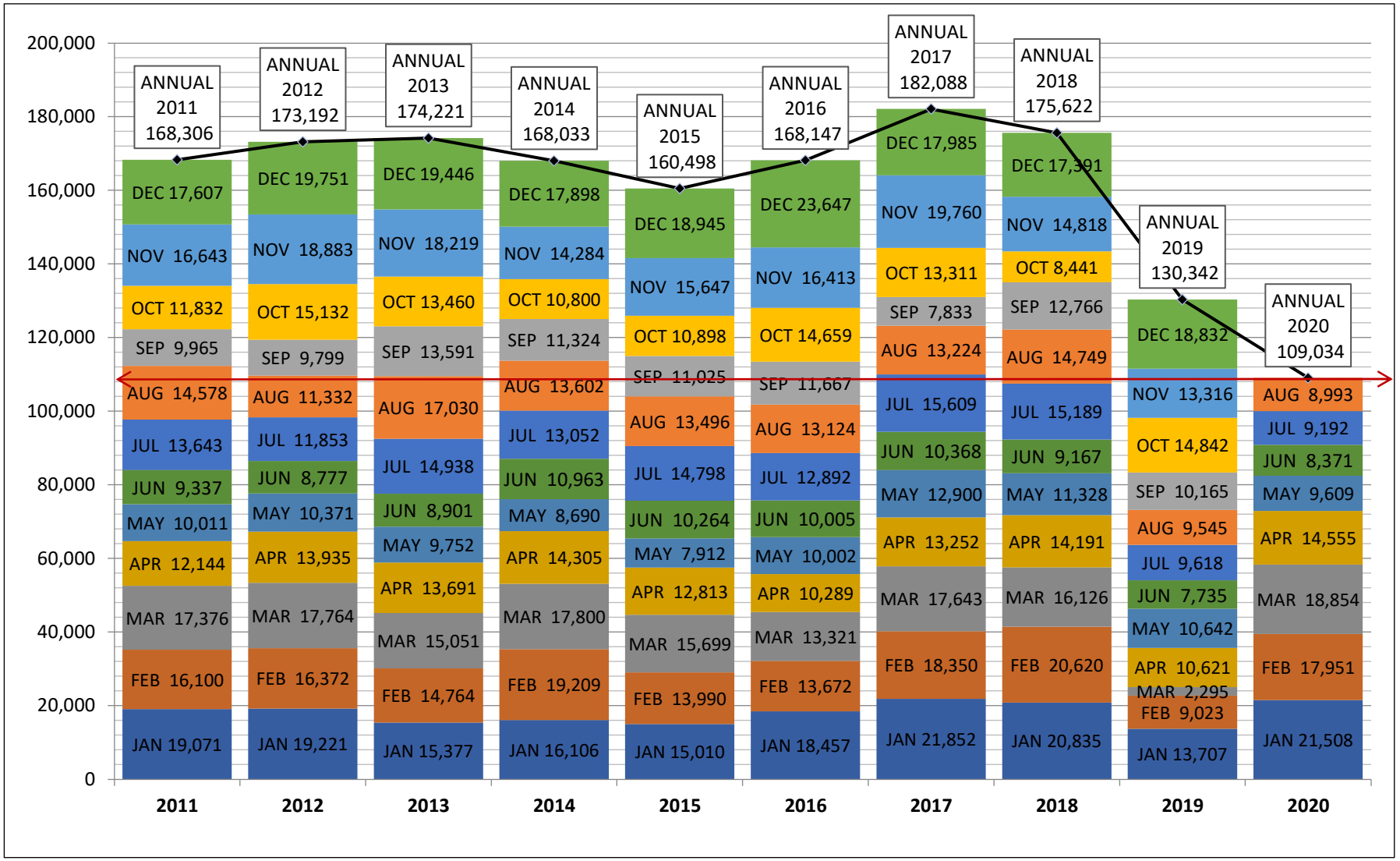
Date:	September 22, 2020	From:	Kay Key
To:	Trey Acteson	Subject:	**FINANCIAL STATEMENTS**

SUGGESTED MOTION
I move to accept year-to-date financial statements through August 2020 and disbursements for June, July, and August 2020 totaling $1,651,556.19, as presented.

Financial Statements in this board packet include:

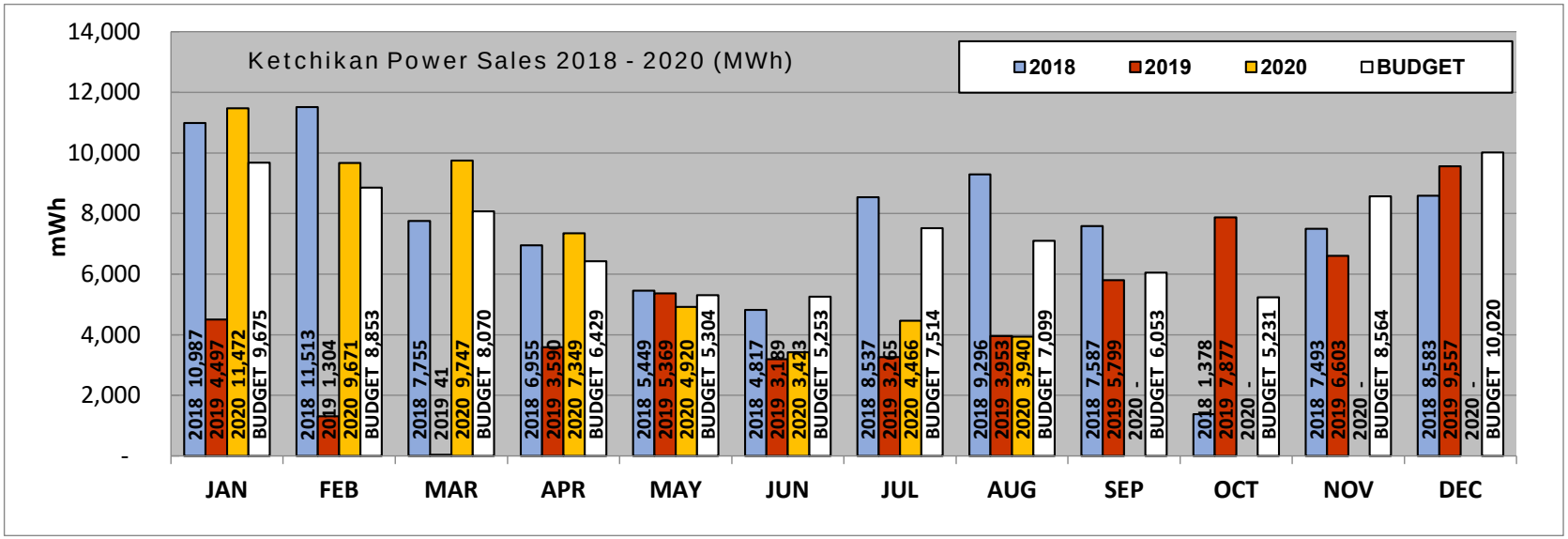
- **kWh Graphs** (Aug 2020)
- **Fund Allocation Graph** (Aug 2020)
- **Grant Summary** (Quarterly through June 2020)
- **Year-to-Date Financial Statements through Aug 2020**
  - ✓ Financial Overview
  - ✓ Statement of Financial Position – Year-to-date with prior year comparison
  - ✓ Statement of Activities – Summary of year-to-date expenses by FERC code, compared to budget and prior year
  - ✓ Statement of Activities – Line-item detail of actual expenses compared to budget by location
  - ✓ R&R Summary
- **Disbursements for June, July, and August 2020**

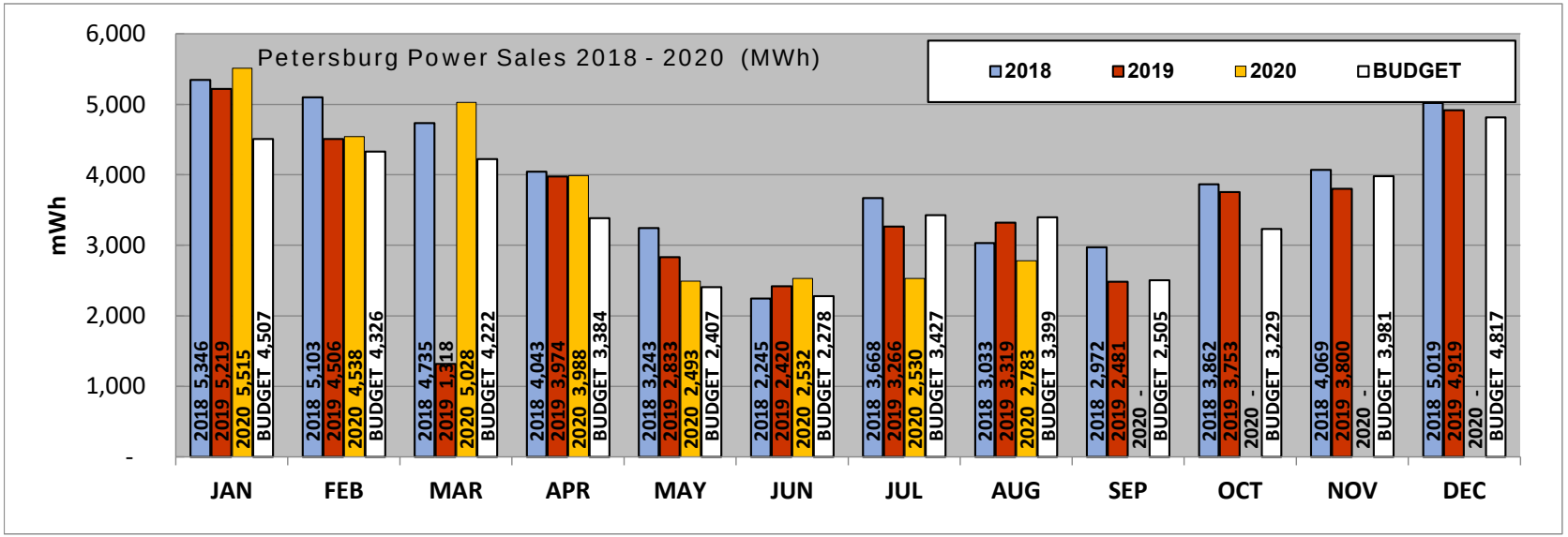
MWh Sales Year-to-Year Comparison



SOUTHEAST ALASKA POWER AGENCY **FIRM POWER SALES (kWh / MWh)**

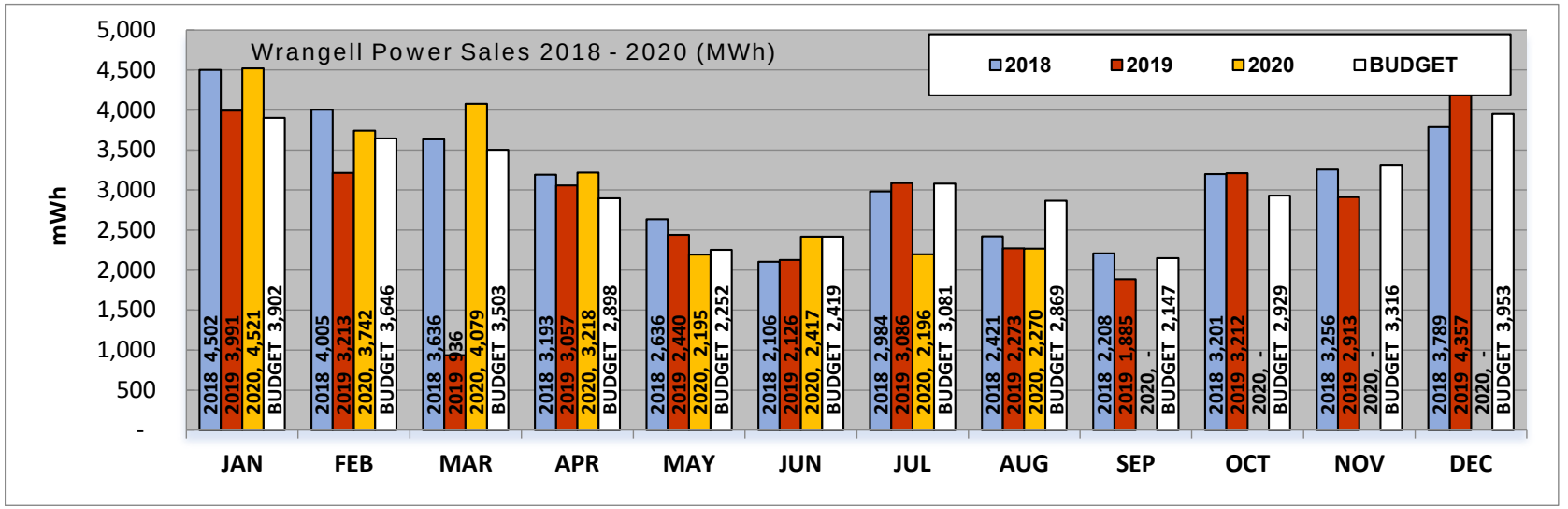
AUG 2020	2020 kWh HYDROPOWER SALES	CURRENT MONTH		YTD	
		Actual	Budget	Actual	Budget
	Ketchikan Power Purchases	3,940,224	7,098,952	54,987,621	58,196,397
	Petersburg Power Purchases	2,782,532	3,398,731	29,407,775	27,949,589
	Wrangell Power Purchases	2,269,890	2,868,611	24,638,250	24,569,454
	Total Power Purchases	8,992,646	13,366,294	109,033,646	110,715,440

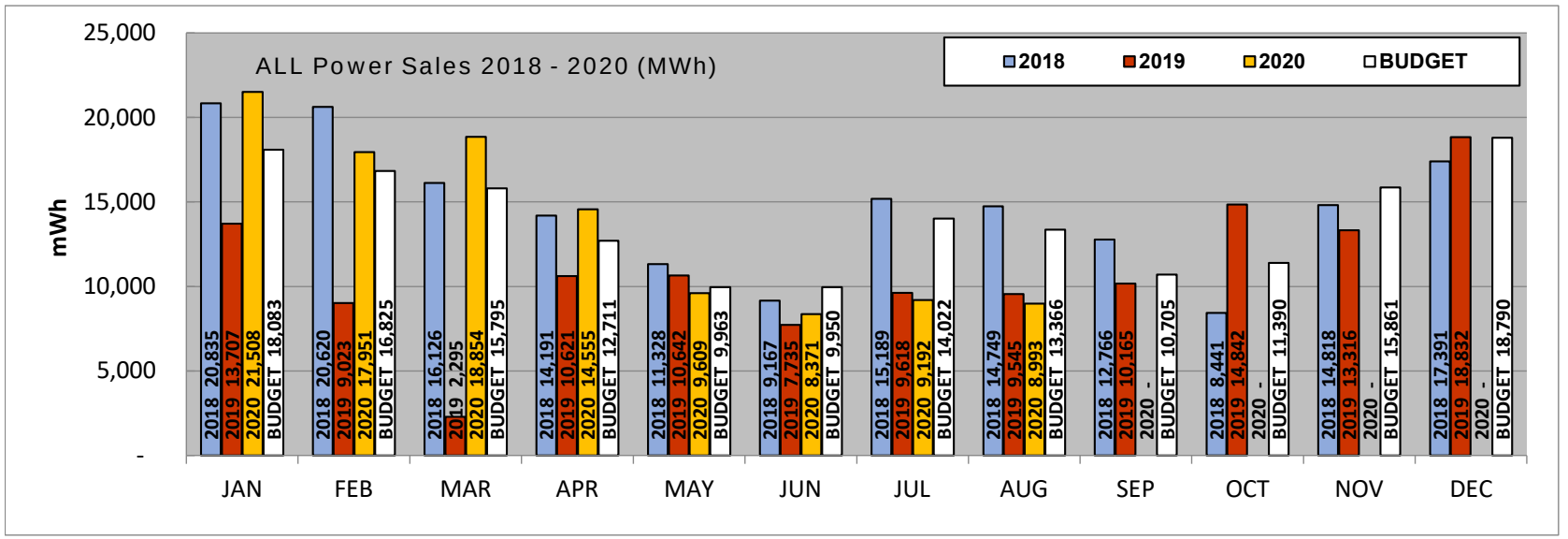




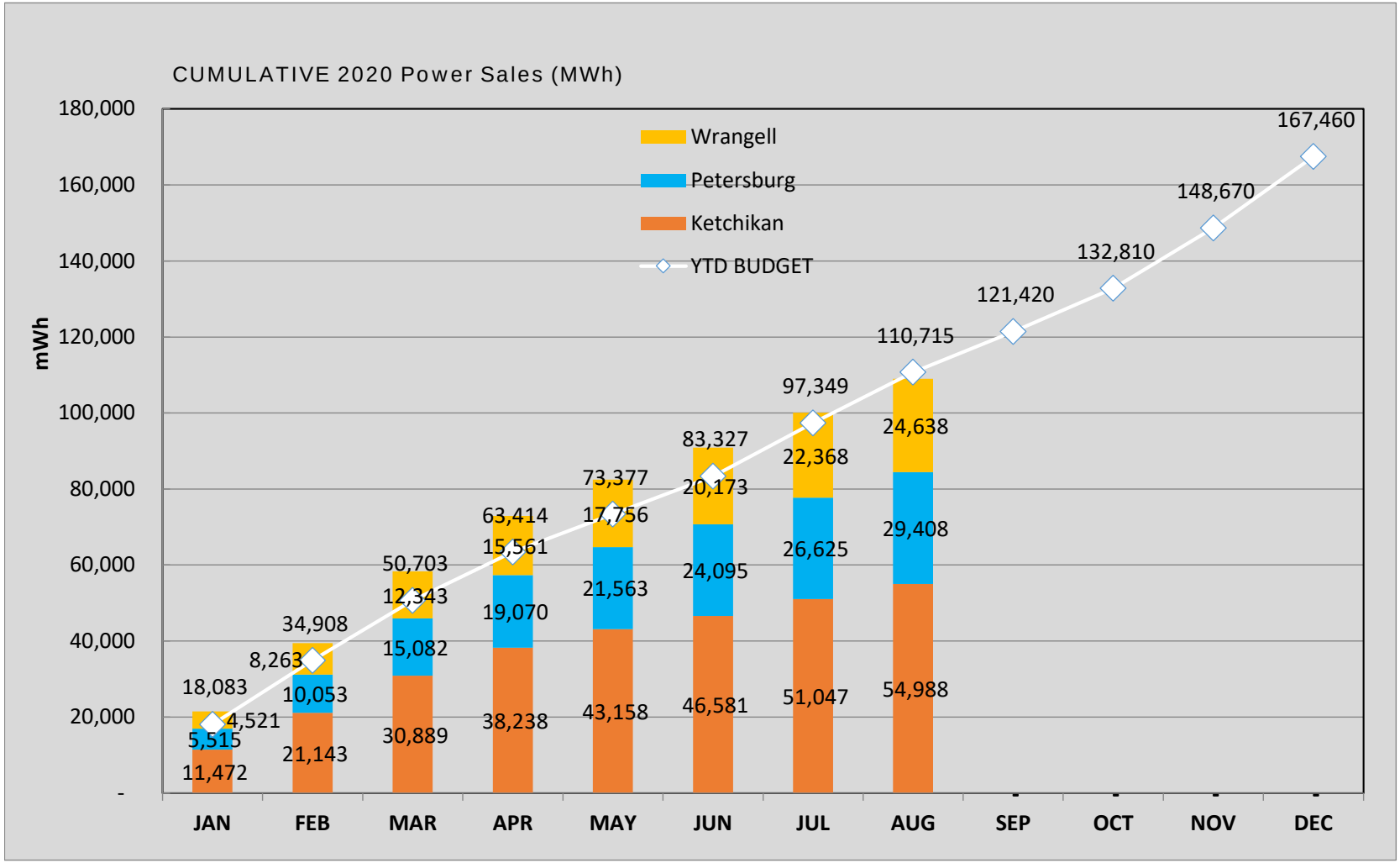
SOUTHEAST ALASKA POWER AGENCY **FIRM POWER SALES (kWh / MWh)**

AUG 2020	2020 kWh HYDROPOWER SALES	CURRENT MONTH		YTD	
		Actual	Budget	Actual	Budget
	Ketchikan Power Purchases	3,940,224	7,098,952	54,987,621	58,196,397
	Petersburg Power Purchases	2,782,532	3,398,731	29,407,775	27,949,589
	Wrangell Power Purchases	2,269,890	2,868,611	24,638,250	24,569,454
	Total Power Purchases	8,992,646	13,366,294	109,033,646	110,715,440



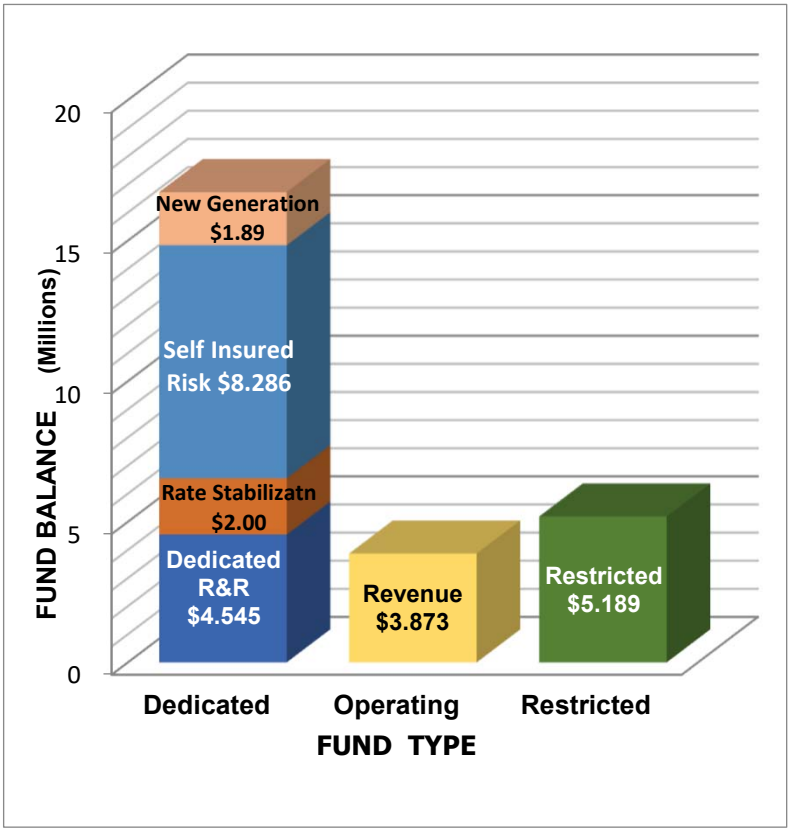


AUG 2020	2020 kWh HYDROPOWER SALES	CURRENT MONTH		YTD	
		Actual	Budget	Actual	Budget
	Ketchikan Power Purchases	3,940,224	7,098,952	54,987,621	58,196,397
	Petersburg Power Purchases	2,782,532	3,398,731	29,407,775	27,949,589
	Wrangell Power Purchases	2,269,890	2,868,611	24,638,250	24,569,454
	Total Power Purchases	8,992,646	13,366,294	109,033,646	110,715,440



AUG 2020

Operations, Capital and Insurance Funds	
Revenue Fund	$ 3,871,800
Checking	1,000
Dedicated R&R Projects Fund	4,545,157
New Generation Fund	1,890,401
Rate Stabilization Fund	2,002,536
Self Insured Risk Fund	8,286,442
Total Operations, Capital and Insurance Funds	20,597,336
Trustee Funds	
2015 Series Bond Interest	$ 123,121
2015 Series Bond Reserve	205,305
2019 Series Bond Interest	58,669
2019 Series Bond Principal	268,739
2019 Series Bond Reserve	1,264,169
Total Trustee Funds	1,920,003
Other Restricted Funds	
STI - USFS CD	$ 21,636
DNR Reclamation Fund	1,268,282
Required R&R Fund	1,000,399
Total Other Restricted Funds	2,290,317
Total Agency Funds	$ 24,807,655



Dedicated Funds

New Generation = Project feasibility funding (hydro, wind, geothermal)
Self-Insured Risk = Coverage for uninsured transmission lines, submarine cables and insurance deductibles.
Rate Stabilization Fund = Reserve Fund governed by the Rate Stabilization Fund Policy.
Dedicated R&R = Funds Replacement & Repair projects approved by the SEAPA Board in the budget.

Operating Funds

Revenue Fund & Commercial Checking: All SEAPA income is deposited to the Revenue Fund as required by Bond Indentures and transferred to checking as needed to cover expenditures.

Restricted Funds (Legally or contractually restricted)

All Trustee Funds: Bond Interest, Principal, Reserve and Escrow accounts
R&R = $1,000,000 minimum balance required by bond indenture
DNR = Alaska DNR Reclamation Agreement
USFS = USFS Land Remediation Certificate of Deposit

SOUTHEAST ALASKA POWER AGENCY
Grant Billing Summary

AK DCCED GRANT 13-DC-553	QUARTERLY BILLING
through JUNE, 2020	

FY20 Grant Billing	Grant Budget	Billing thru FY20	Open Balance	Mar-20	Jun-20	Sep-20	Jun-19	Jan-Dec
1 - Hydro Storage	578,000	578,000	-	-	-	-	-	-
2 - G&T Site Evaluation	2,109,092	1,767,916	341,176	14,867	32,208	-	-	47,075
3 - Stability / Interconnecti	-	-	-	-	-	-	-	-
4 - Load Balance Model	9,181	9,181	-	-	-	-	-	-
5 - Project Mgmt	255,712	255,712	-	-	-	-	-	-
6 - Business Analysis / PSA	48,015	48,015	-	-	-	-	-	-
Total FY13 AK DCCED	3,000,000	2,658,824	341,176	14,867	32,208	-	-	47,075

This grant is billed to the DCCED for reimbursement on a quarterly basis and has been extended to June 30, 2021.

AUGUST 2020

YTD FINANCIAL OVERVIEW

OPERATING REVENUE

FIRM kWh SALES	JAN-AUG 2020	Budget	Prior Year
Ketchikan	$3,739,158	$3,957,356	$1,714,119
Petersburg	1,999,729	1,900,573	1,826,248
Wrangell	1,675,401	1,670,723	1,436,346
Total Revenue	$7,414,288	$7,528,652	$4,976,712

2019 Sales were low due to drought conditions. An $842K diesel payment to Petersburg and Wrangell (not reflected in these figures) further reduced 2019 Net Revenue.

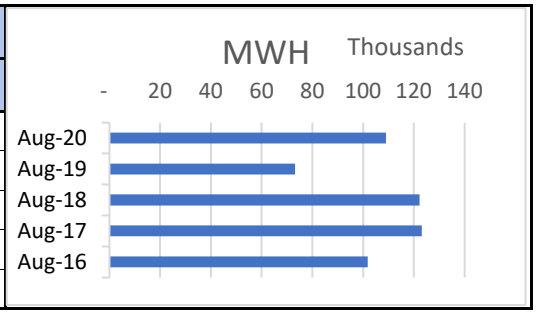
OPERATING EXPENSES

	JAN-AUG 2020	Budget	Prior Year
Hydro Facilities	$1,464,813	$1,830,470	$1,516,686
Transmission	583,658	1,104,050	1,203,399
G&A	1,896,342	1,953,475	1,743,089
Total Ops Exp	$3,944,812	$4,887,995	$4,463,174

Transmission line maintenance was budgeted for an earlier period than which it occurred.

MWH TREND

Year-to-Date MWH SALES	
Year	**MWH**
Aug-20	109,034
Aug-19	73,186
Aug-18	122,205
Aug-17	123,198
Aug-16	101,761



2019 drought.

Southeast Alaska Power Agency

Statement of Financial Position

as of **August 31, 2020**

	Month Ending 08/31/20	Month Ending 08/31/19
Assets		
Current Assets		
Agency Funds		
Operating & Reserve Funds	20,597,336	18,895,370
Restricted Trustee Funds	1,920,003	1,934,909
Restricted Other Funds	2,290,317	2,203,453
Total Agency Funds	**24,807,655**	**23,033,731**
Accounts Receivable		
1100-001 - Accounts Receivable	1,087,272	902,903
1100-003 - Other Misc Receivable	5,800	5,800
Total Accounts Receivable	**1,093,071**	**908,702**
Other Current Assets		
Accrued Interest Receivable		
1200-102 - Accrued Interest Receivable	42,649	51,347
Total Accrued Interest Receivable	**42,649**	**51,347**
Prepaid Fees		
1200-201 - Prepaid FERC Fees	24,724	7,721
1200-202 - Prepaid Insurance	78,729	74,405
1200-203 - Prepaid Operating Expense	-	1,531
1200-204 - Prepaid USFS Land Use Fees	35,195	34,873
1200-206 - Prepaid Admin Group Ben	10,212	903
1200-207 - Prepaid Admin Retirement	42,886	97,840
Total Prepaid Fees	**191,746**	**217,273**
Inventory Assets		
1200-300 - Inventory Spares-Stores	223,691	216,804
1200-301 - Inventory SWL Winding Replace	890,405	890,405
1200-302 - Inventory Flashboard Kickers	439,456	439,456
Total Inventory Assets	**1,553,552**	**1,546,665**
Total Other Current Assets	**1,787,947**	**1,815,285**
Total Current Assets	**27,688,673**	**25,757,718**
Capital Assets		
1300-100 - Swan Lake Capital Assets	32,614,772	31,919,950
1300-200 - Tyee Lake Capital Assets	32,705,407	32,380,901
1300-300 - Swan-Tyee Intertie Capital Assets	114,974,970	114,975,032
1300-400 - Ketchikan Capital Assets	1,379,333	1,379,333
Total Capital Assets	**181,674,482**	**180,655,216**
R&R WIP Capital Projects		
1320-100 - WIP Swan Lake	1,058,789	295,044
1320-200 - WIP Tyee Lake	370,413	65,810
1320-300 - WIP Swan-Tyee Intertie	1,810	-
1320-400 - WIP Ketchikan	129,938	41,245
Total R&R WIP Capital Projects	**1,560,950**	**402,099**
Accumulated Depreciation	(55,508,468)	(50,690,463)
Total Capital Assets	**127,726,964**	**130,366,852**
Other Assets		
Deferred Assets		
1830-004 - Tyee Marine Access	10,459	6,975
1830-006 - New Generation Integration	4,505	4,104
1830-007 - 2019 Bond Gain on 2009 Refund	85,126	107,826
1830-008 - Vank-Woronkofski Sub Cable	151,591	-
Total Other Assets	**251,680**	**118,905**
Total Assets	**155,667,318**	**156,243,475**

Southeast Alaska Power Agency

Statement of Financial Position

as of **August 31, 2020**

	Month Ending **08/31/20**	Month Ending **08/31/19**
Liabilities and Net Position		
Liabilities		
Current Liabilities		
Accounts Payable		
2100-001 - Accounts Payable General	196,778	125,871
Total Accounts Payable	**196,778**	**125,871**
Other Current Liabilities		
2100-301 - Other Current Liabilities	14,910	-
2100-304 - Reserve Interest Payable	149,317	189,661
2100-340 - Wages Payable	109,899	93,323
2100-341 - PTO Payable	247,434	186,935
Total Other Current Liabilities	**521,559**	**469,919**
Other Payroll Liabilities	46,031	50,607
Total Current Liabilities	**764,368**	**646,398**
Long Term Liabilities		
2200-001 - PERS Unfunded Liability WRG	791,386	876,384
2200-002 - DNR Fund CVEA KEA Liability	634,141	590,858
2200-202 - Series 2015 Bonds	10,295,000	10,295,000
2200-203 - Series 2019 Bonds	3,475,000	4,245,000
2200-302 - 2015 Bond Issuance Premium	701,993	757,052
2200-303 - 2019 Bond Issuance Premium	394,880	408,898
Total Long Term Liabilities	**16,292,400**	**17,173,191**
Total Liabilities	**17,056,768**	**17,819,590**
Net Position		
3100-001 - Net Investment Capital Assets	114,172,481	115,404,716
3100-002 - Restricted for Debt Service	1,469,099	1,469,349
3100-003 - Restricted by External Agreement	1,212,104	1,203,349
3100-004 - Unrestricted	21,653,769	20,510,323
Total Net Position	**138,507,454**	**138,587,737**
Net Income	103,096	(163,852)
Total Net Position	**138,610,550**	**138,423,885**
Total Liabilities and Net Position	**155,667,318**	**156,243,475**

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Southeast Alaska Power Agency

Statement of Activities - Budget YTD

Year To Date as of **Aug 31, 2020**

	YTD FY20	YTD BUDGET	%	YTD FY19	ANNUAL Budget
OPERATING REVENUE					
1 400 - Hydro Facility Revenues	7,414,288	7,528,652	-2%	4,134,927	11,387,294
454 - Rent-Electric Property	4,896	-	100%	2,448	-
TOTAL OPERATING REVENUE	**7,419,183**	**7,528,652**	**-1%**	**4,137,375**	**11,387,294**
OPERATING EXPENSE					
HYDRO FACILITY O&M					
535 - Operations Supervision	13,016	62,240	-79%	8,483	116,500
537 - Hydraulic Expense	3,977	10,000	-60%	11,979	10,000
538 - Electric Expenses	19,733	50,400	-61%	10,903	103,400
539 - Operations Misc Expense	261,443	351,830	-26%	196,655	529,000
540 - Rents	109,673	121,000	-9%	107,693	186,500
541 - Hydro Power Station Maintenance	27,938	34,400	-19%	39,016	51,000
543 - Dams Reservoirs Waterways	7,580	14,450	-48%	55,274	17,750
544 - Electric Plant Wages-Benefits	983,863	1,100,200	-11%	993,076	1,600,000
545 - Nonproduction Plant Maintenance	17,652	31,150	-43%	51,267	55,700
561 - Control System Maintenance	19,939	54,800	-64%	42,338	82,000
Total Hydro Facility Expense	1,464,813	1,830,470	-20%	1,516,686	2,751,850
TRANSMISSION O&M					
562 - Substation Expense	20,275	46,610	-56%	19,354	97,050
2 564 - XMSN Submarine Cable Expense	71,558	76,300	-6%	526,213	119,600
571 - XMSN Overhead Lines Expense	491,825	981,140	-50%	657,831	1,453,750
Total Transmission Expense	583,658	1,104,050	-47%	1,203,399	1,670,400
GENERAL & ADMIN EXPENSE					
920 - Admin Wages-Benefits	1,076,885	1,054,920	2%	996,932	1,583,000
921 - Office Expenses	112,584	132,580	-15%	108,365	191,850
923 - Professional Services	187,445	224,200	-16%	162,850	316,700
924 - Insurance	308,656	316,000	-2%	262,451	475,000
928 - Regulatory Commission Expense	64,771	57,250	13%	69,132	94,000
930 - General Expense	93,136	115,525	-19%	81,505	155,325
931 - Admin Rent	52,864	53,000	0%	61,854	79,600
Total G&A Expense	1,896,342	1,953,475	-3%	1,743,089	2,895,475
TOTAL OPERATING EXPENSE	**3,944,812**	**4,887,995**	**-19%**	**4,463,174**	**7,317,725**
NET OPERATING EXPENSE	**3,474,371**	**2,640,657**	**18%**	**(325,799)**	
NONOPERATING REVENUE/(EXPENSE)					
Nonoperating Income					
941 - Grant Income	14,867				
942 - Interest Income Misc	128,161				
944 - Gain/(Loss) Investments	153,819				
Total Nonoperating Income	**296,848**				
Nonoperating Expense					
952 - Bond Interest Expense	428,904				
953 - Depreciation Expense	3,214,176				
954 - Grant Expense	17,340				
955 - Misc Nonoperating Expense	7,783				
Total Nonoperating Expense	**3,668,203**				
TOTAL NONOPERATING REVENUE/(EXPENSE)	**(3,371,355)**				
Change in Net Position	**103,017**				

1 *400 - FY19 Sales $4.9M less $841K diesel reimbursement to PSG & WRG*

2 *564 - Submarine cable inspection in FY19.*

Southeast Alaska Power Agency

Statement of Activities YTD Budget

as of **August 31, 2020**

	No Location 08/31/20		Swan Lake 08/31/20		Tyee Lake 08/31/20		STI 08/31/20		All Locations `	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
OPERATING REVENUE										
400 - Hydro Facility Revenues										
4000-401 Hydropower Sales Ketchikan	3,739,158	3,957,356	-	-	-	-	-	-	3,739,158	3,957,356
4000-402 Hydropower Sales Petersburg	1,999,729	1,900,573	-	-	-	-	-	-	1,999,729	1,900,573
4000-403 Hydropower Sales Wrangell	1,675,401	1,670,723	-	-	-	-	-	-	1,675,401	1,670,723
Total 400 - Hydro Facility Revenues	**7,414,288**	**7,528,652**	**-**	**-**	**-**	**-**	**-**	**-**	**7,414,288**	**7,528,652**
454 - Rent-Electric Property										
4540-451 Rent Electric Property	4,896	-	-	-	-	-	-	-	4,896	-
Total 454 - Rent-Electric Property	**4,896**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4,896**	**-**
TOTAL OPERATING REVENUE	**7,419,183**	**7,528,652**	**-**	**-**	**-**	**-**	**-**	**-**	**7,419,183**	**7,528,652**
OPERATING EXPENSE										
535 - Operations Supervision										
0310 Contractor	-	-	-	15,500	-	-	-	35,000	-	50,500
0610 Office Equipment	-	-	-	340	-	-	489	340	489	680
0730 Office Supplies	-	-	463	680	-	-	799	680	1,262	1,360
0750 Safety	-	-	-	-	-	-	28	-	28	-
0800 Materials-Minor Equip	-	-	9,236	8,000	-	-	-	1,700	9,236	9,700
0840 Furnishings	-	-	-	-	-	-	2,001	-	2,001	-
Total 535 - Operations Supervision	**-**	**-**	**9,699**	**24,520**	**-**	**-**	**3,317**	**37,720**	**13,016**	**62,240**
537 - Hydraulic Expense										
0330 Helicopters	-	-	1,026	4,000	-	-	2,951	4,000	3,977	8,000
0800 Materials-Minor Equip	-	-	-	1,000	-	-	-	1,000	-	2,000
Total 537 - Hydraulic Expense	**-**	**-**	**1,026**	**5,000**	**-**	**-**	**2,951**	**5,000**	**3,977**	**10,000**
538 - Electric Expenses										
0310 Contractor	-	-	2,595	8,000	-	-	1,004	8,000	3,599	16,000
0740 Operating Supplies	-	-	4,547	5,000	-	-	95	5,000	4,643	10,000
0800 Materials-Minor Equip	-	-	5,934	5,000	-	-	5,017	13,000	10,951	18,000
0850 Tools	-	-	540	3,200	-	-	-	3,200	540	6,400
Total 538 - Electric Expenses	**-**	**-**	**13,616**	**21,200**	**-**	**-**	**6,116**	**29,200**	**19,733**	**50,400**

Southeast Alaska Power Agency

Statement of Activities YTD Budget

as of **August 31, 2020**

	No Location 08/31/20		Swan Lake 08/31/20		Tyee Lake 08/31/20		STI 08/31/20		All Locations `	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
539 - Operations Misc Expense										
0190 Medical	-	-	-	-	-	-	525	-	525	-
0300 Communication Services	-	-	8,350	9,200	-	-	68,784	68,000	77,134	77,200
0310 Contractor	-	-	5,376	10,400	-	-	6,450	4,650	11,826	15,050
0320 Flights	-	-	16,695	40,000	-	-	33,074	40,000	49,769	80,000
0330 Helicopters	-	-	-	-	-	-	3,363	-	3,363	-
0373 Rent-Other	-	-	759	1,200	-	-	-	-	759	1,200
0390 Software	-	-	2,400	-	-	-	2,400	-	4,800	-
0401 Training-Pro-Tech	-	-	7,264	18,700	-	-	9,238	18,700	16,502	37,400
0402 Training-Safety	-	-	17,498	23,400	-	-	10,306	27,400	27,804	50,800
0410 Transport-Other	-	-	-	7,750	-	-	6,506	7,750	6,506	15,500
0420 Utilities	-	-	710	600	-	-	-	-	710	600
0600 Phones, Radios, Video	-	-	5,661	-	-	-	2,343	3,000	8,004	3,000
0620 Satellite Hardware	-	-	1,835	-	-	-	-	-	1,835	-
0700 Clothing	-	-	978	-	-	-	75	-	1,053	-
0710 Food, Meals	-	-	230	1,400	-	-	592	2,400	822	3,800
0740 Operating Supplies	-	-	584	800	-	-	2,284	5,000	2,868	5,800
0750 Safety	-	-	6,434	8,400	-	-	6,963	8,400	13,398	16,800
0800 Materials-Minor Equip	-	-	52	680	-	-	89	400	141	1,080
0810 Rolling Stock Maint	-	-	3,202	4,000	-	-	13,476	1,700	16,679	5,700
0811 Marine Vessel Maint	-	-	1,768	1,400	-	-	53	-	1,821	1,400
0820 Fuels and Oils	-	-	934	16,500	-	-	9,086	5,000	10,020	21,500
0830 Fuels and Oils - Marine	-	-	3,333	4,000	-	-	1,518	11,000	4,851	15,000
0850 Tools	-	-	254	-	-	-	-	-	254	-
Total 539 - Operations Misc Expense	**-**	**-**	**84,319**	**148,430**	**-**	**-**	**177,124**	**203,400**	**261,443**	**351,830**
540 - Rents										
0010 Other Regulatory	-	-	-	-	334	10,000	-	-	334	10,000
0030 FERC Land Use	-	-	8,326	8,400	-	-	30,422	30,400	38,748	38,800
0050 USFS Land Use	-	-	-	-	52,075	52,000	18,516	20,200	70,591	72,200
Total 540 - Rents	**-**	**-**	**8,326**	**8,400**	**52,408**	**62,000**	**48,939**	**50,600**	**109,673**	**121,000**

Southeast Alaska Power Agency

Statement of Activities YTD Budget

as of **August 31, 2020**

	No Location 08/31/20		Swan Lake 08/31/20		Tyee Lake 08/31/20		STI 08/31/20		All Locations `	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
541 - Hydro Power Station Maintenance										
0310 Contractor	-	-	-	3,400	-	-	-	3,400	-	6,800
0740 Operating Supplies	-	-	4,559	3,400	-	-	4,519	3,400	9,078	6,800
0800 Materials-Minor Equip	-	-	7,331	3,400	-	-	1,190	3,400	8,520	6,800
0850 Tools	-	-	457	4,000	-	-	9,882	10,000	10,339	14,000
Total 541 - Hydro Power Station Maintenance	**-**	**-**	**12,347**	**14,200**	**-**	**-**	**15,591**	**20,200**	**27,938**	**34,400**
543 - Dams Reservoirs Waterways										
0330 Helicopters	-	-	-	-	-	-	2,951	5,000	2,951	5,000
0740 Operating Supplies	-	-	27	1,000	-	-	-	1,700	27	2,700
0800 Materials-Minor Equip	-	-	3,743	1,500	-	-	859	2,500	4,602	4,000
0820 Fuels and Oils	-	-	-	-	-	-	-	250	-	250
0850 Tools	-	-	-	-	-	-	-	2,500	-	2,500
Total 543 - Dams Reservoirs Waterways	**-**	**-**	**3,770**	**2,500**	**-**	**-**	**3,810**	**11,950**	**7,580**	**14,450**
544 - Electric Plant Wages-Benefits										
0110 Wages / PTO	-	-	378,412	353,900	-	-	304,184	341,000	682,596	694,900
* 0110-001 Wages C19 202003	-	-	3,449	-	-	-	3,449	-	6,898	-
* 0110-002 Wages C19 FFCRA Credits	-	-	(4,225)	-	-	-	(493)	-	(4,718)	-
0120 OT	-	-	46,831	57,900	-	-	59,466	47,300	106,296	105,200
0140 Taxes	-	-	32,673	76,200	-	-	27,873	61,900	60,545	138,100
0140-001 Mcr Tax Credit FFCRA	-	-	(49)	-	-	-	(20)	-	(68)	-
0150 H&W	-	-	69,358	52,100	-	-	59,621	42,400	128,979	94,500
0160 Retirement	-	-	48,028	35,100	-	-	41,386	32,400	89,414	67,500
0170 Capx-Grants	-	-	(76,935)	-	-	-	(9,395)	-	(86,330)	-
0300 Communication Services	-	-	-	-	-	-	250	-	250	-
Total 544 - Electric Plant Wages-Benefits	**-**	**-**	**497,541**	**575,200**	**-**	**-**	**486,322**	**525,000**	**983,863**	**1,100,200**
545 - Nonproduction Plant Maintenance										
0310 Contractor	-	-	130	250	-	-	723	-	853	250
0373 Rent-Other	-	-	2,568	2,600	-	-	-	-	2,568	2,600
0410 Transport-Other	-	-	-	7,500	-	-	-	7,500	-	15,000
0740 Operating Supplies	-	-	1,025	4,000	-	-	5,604	5,600	6,629	9,600
0800 Materials-Minor Equip	-	-	122	-	-	-	5,889	500	6,010	500
0810 Rolling Stock Maint	-	-	-	-	-	-	640	250	640	250
0820 Fuels and Oils	-	-	-	-	-	-	284	-	284	-
0840 Furnishings	-	-	-	1,250	-	-	-	250	-	1,500
0850 Tools	-	-	-	200	-	-	668	1,250	668	1,450
Total 545 - Nonproduction Plant Maintenance	**-**	**-**	**3,845**	**15,800**	**-**	**-**	**13,807**	**15,350**	**17,652**	**31,150**

Southeast Alaska Power Agency

Statement of Activities YTD Budget

as of **August 31, 2020**

	No Location 08/31/20		Swan Lake 08/31/20		Tyee Lake 08/31/20		STI 08/31/20		All Locations `	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
561 - Control System Maintenance										
0310 Contractor	-	-	9,234	26,000	-	-	9,782	26,000	19,016	52,000
0350 Licenses-Permits	-	-	-	1,400	-	-	-	1,400	-	2,800
0610 Office Equipment	-	-	35	-	-	-	-	-	35	-
0800 Materials-Minor Equip	-	-	-	-	-	-	888	-	888	-
Total 561 - Control System Maintenance	**-**	**-**	**9,269**	**27,400**	**-**	**-**	**10,671**	**27,400**	**19,939**	**54,800**
562 - Substation Expense										
0300 Communication Services	-	-	-	-	-	-	3,809	4,320	3,809	4,320
0310 Contractor	-	-	-	-	-	-	-	23,350	-	23,350
0320 Flights	-	-	-	-	-	-	1,971	3,400	1,971	3,400
0360 Lodging	-	-	-	-	-	-	-	500	-	500
0420 Utilities	-	-	-	-	-	-	8,842	8,000	8,842	8,000
0710 Food, Meals	-	-	-	-	-	-	-	200	-	200
0740 Operating Supplies	-	-	-	-	-	-	1,387	1,000	1,387	1,000
0800 Materials-Minor Equip	-	-	3,686	5,000	-	-	195	350	3,881	5,350
0820 Fuels and Oils	-	-	-	-	-	-	50	140	50	140
0850 Tools	-	-	336	-	-	-	-	350	336	350
Total 562 - Substation Expense	**-**	**-**	**4,021**	**5,000**	**-**	**-**	**16,254**	**41,610**	**20,275**	**46,610**
564 - XMSN Submarine Cable Expense										
0310 Contractor	-	-	-	-	-	-	71,500	70,000	71,500	70,000
0410 Transport-Other	-	-	-	-	-	-	-	2,400	-	2,400
0600 Phones, Radios, Video	-	-	-	-	-	-	58	-	58	-
0740 Operating Supplies	-	-	-	-	-	-	-	700	-	700
0800 Materials-Minor Equip	-	-	-	-	-	-	-	1,400	-	1,400
0830 Fuels and Oils - Marine	-	-	-	-	-	-	-	600	-	600
0850 Tools	-	-	-	-	-	-	-	1,200	-	1,200
Total 564 - XMSN Submarine Cable Expense	**-**	**-**	**-**	**-**	**-**	**-**	**71,558**	**76,300**	**71,558**	**76,300**

Southeast Alaska Power Agency

Statement of Activities YTD Budget

as of **August 31, 2020**

	No Location 08/31/20		Swan Lake 08/31/20		Tyee Lake 08/31/20		STI 08/31/20		All Locations `	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
571 - XMSN Overhead Lines Expense										
0110 Wages / PTO	83,581	81,050	-	-	-	-	-	-	83,581	81,050
* 0110-001 Wages C19 202003	2,759	-	-	-	-	-	-	-	2,759	-
0120 OT	272	10,700	-	-	-	-	-	-	272	10,700
0140 Taxes	6,883	8,640	-	-	-	-	-	-	6,883	8,640
0150 H&W	14,331	15,300	-	-	-	-	-	-	14,331	15,300
0160 Retirement	9,259	11,000	-	-	-	-	-	-	9,259	11,000
0300 Communication Services	878	-	-	-	-	-	-	-	878	-
0310 Contractor	180	-	17,332	246,500	15,000	279,500	15,000	241,500	47,511	767,500
0320 Flights	2,313	5,000	-	-	-	-	-	-	2,313	5,000
0330 Helicopters	42,066	49,000	-	-	-	-	-	-	42,066	49,000
0360 Lodging	5,582	9,250	-	-	-	-	-	-	5,582	9,250
0373 Rent-Other	1,429	1,000	-	-	-	-	-	-	1,429	1,000
0380 ROW Clearing	-	-	-	-	86,500	-	167,500	-	254,000	-
0402 Training-Safety	129	-	-	-	-	-	-	-	129	-
0410 Transport-Other	33	1,250	-	-	-	-	-	-	33	1,250
0420 Utilities	789	650	-	-	-	-	-	-	789	650
0700 Clothing	408	-	-	-	-	-	-	-	408	-
0710 Food, Meals	1,633	5,000	-	-	-	-	-	-	1,633	5,000
0740 Operating Supplies	2,056	6,000	-	-	-	-	-	-	2,056	6,000
0750 Safety	1,098	-	-	-	-	-	-	-	1,098	-
0800 Materials-Minor Equip	869	1,500	-	-	8,162	-	-	-	9,031	1,500
0810 Rolling Stock Maint	133	-	-	-	-	-	-	-	133	-
0811 Marine Vessel Maint	2,124	2,400	-	-	-	-	-	-	2,124	2,400
0820 Fuels and Oils	541	1,700	-	-	-	-	-	-	541	1,700
0830 Fuels and Oils - Marine	1,486	4,200	-	-	-	-	-	-	1,486	4,200
0850 Tools	1,499	-	-	-	-	-	-	-	1,499	-
Total 571 - XMSN Overhead Lines Expense	**182,331**	**213,640**	**17,332**	**246,500**	**109,662**	**279,500**	**182,500**	**241,500**	**491,825**	**981,140**

Southeast Alaska Power Agency

Statement of Activities YTD Budget

as of **August 31, 2020**

	No Location 08/31/20		Swan Lake 08/31/20		Tyee Lake 08/31/20		STI 08/31/20		All Locations `	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
920 - Admin Wages-Benefits										
0110 Wages / PTO	627,132	610,400	-	-	-	-	-	-	627,132	610,400
* 0110-002 Wages C19 FFCRA Credits	(539)	-	-	-	-	-	-	-	(539)	-
0120 OT	489	1,320	-	-	-	-	-	-	489	1,320
0140 Taxes	48,733	43,200	-	-	-	-	-	-	48,733	43,200
0140-001 Mcr Tax Credit FFCRA	(8)	-	-	-	-	-	-	-	(8)	-
0150 H&W	148,360	148,000	-	-	-	-	-	-	148,360	148,000
0160 Retirement	251,719	252,000	-	-	-	-	-	-	251,719	252,000
0300 Communication Services	1,000	-	-	-	-	-	-	-	1,000	-
Total 920 - Admin Wages-Benefits	**1,076,885**	**1,054,920**	**-**	**-**	**-**	**-**	**-**	**-**	**1,076,885**	**1,054,920**
921 - Office Expenses										
0300 Communication Services	13,645	14,800	-	-	-	-	-	-	13,645	14,800
0310 Contractor	35,995	61,950	-	-	-	-	-	-	35,995	61,950
0350 Licenses-Permits	74	100	-	-	-	-	-	-	74	100
0373 Rent-Other	249	-	-	-	-	-	-	-	249	-
0390 Software	33,134	13,000	-	-	-	-	-	-	33,134	13,000
0420 Utilities	6,653	22,500	-	-	-	-	-	-	6,653	22,500
0610 Office Equipment	8,249	680	-	-	-	-	-	-	8,249	680
0700 Clothing	440	-	-	-	-	-	-	-	440	-
0710 Food, Meals	1,064	1,000	-	-	-	-	-	-	1,064	1,000
0730 Office Supplies	6,798	5,600	-	-	-	-	-	-	6,798	5,600
0750 Safety	4,573	5,600	-	-	-	-	-	-	4,573	5,600
0810 Rolling Stock Maint	1,055	1,800	-	-	-	-	-	-	1,055	1,800
0820 Fuels and Oils	608	800	-	-	-	-	-	-	608	800
0840 Furnishings	48	4,750	-	-	-	-	-	-	48	4,750
Total 921 - Office Expenses	**112,584**	**132,580**	**-**	**-**	**-**	**-**	**-**	**-**	**112,584**	**132,580**
923 - Professional Services										
0910 Audit-Accounting	29,800	31,000	-	-	-	-	-	-	29,800	31,000
0920 Banking-Trustee-Investment	28,825	17,200	-	-	-	-	-	-	28,825	17,200
0930 Legal	51,186	55,000	-	-	-	-	-	-	51,186	55,000
0940 Legislative	32,000	32,000	-	-	-	-	-	-	32,000	32,000
0950 Other Professional Services	45,633	89,000	-	-	-	-	-	-	45,633	89,000
Total 923 - Professional Services	**187,445**	**224,200**	**-**	**-**	**-**	**-**	**-**	**-**	**187,445**	**224,200**
924 - Insurance										
0960 Insurance	308,656	316,000	-	-	-	-	-	-	308,656	316,000
Total 924 - Insurance	**308,656**	**316,000**	**-**	**-**	**-**	**-**	**-**	**-**	**308,656**	**316,000**

Southeast Alaska Power Agency

Statement of Activities YTD Budget

as of **August 31, 2020**

	No Location 08/31/20		Swan Lake 08/31/20		Tyee Lake 08/31/20		STI 08/31/20		All Locations `	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
928 - Regulatory Commission Expense										
0010 Other Regulatory	-	-	50	-	290	-	17,100	-	17,440	-
0020 FERC Admin	-	-	20,803	13,600	-	-	18,957	11,900	39,760	25,500
0040 FERC Other	-	-	7,471	31,750	-	-	-	-	7,471	31,750
0060 AK Agency	-	-	100	-	-	-	-	-	100	-
Total 928 - Regulatory Commission Expense	**-**	**-**	**28,424**	**45,350**	**290**	**-**	**36,057**	**11,900**	**64,771**	**57,250**
930 - General Expense										
0200 Advertising-Public Relations	23,065	20,000	-	-	-	-	-	-	23,065	20,000
0210 Association Dues	36,317	37,225	-	-	-	-	-	-	36,317	37,225
0220 Board Meeting Expense	27,114	17,500	-	-	-	-	-	-	27,114	17,500
0230 Professional Development	3,985	16,800	-	-	-	-	-	-	3,985	16,800
0240 Travel Expense (Admin)	2,111	23,000	-	-	-	-	-	-	2,111	23,000
0250 Non-Travel Incidental	544	1,000	-	-	-	-	-	-	544	1,000
Total 930 - General Expense	**93,136**	**115,525**	**-**	**-**	**-**	**-**	**-**	**-**	**93,136**	**115,525**
931 - Admin Rent										
0371 Rent-Office Space	40,664	40,700	-	-	-	-	-	-	40,664	40,700
0372 Rent-Apartment	12,200	12,300	-	-	-	-	-	-	12,200	12,300
Total 931 - Admin Rent	**52,864**	**53,000**	**-**	**-**	**-**	**-**	**-**	**-**	**52,864**	**53,000**
TOTAL OPERATING EXPENSE	**2,013,902**	**2,109,865**	**693,535**	**1,139,500**	**162,360**	**341,500**	**1,075,016**	**1,297,130**	**3,944,812**	**4,887,995**
NET NONOPERATING REVENUE/EXPENSE									**3,474,371**	**2,640,657**

Southeast Alaska Power Agency

Statement of Activities YTD Budget

as of **August 31, 2020**

	No Location 08/31/20		Swan Lake 08/31/20		Tyee Lake 08/31/20		STI 08/31/20		All Locations `	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
NONOPERATING REVENUE/(EXPENSE)										
941 - Grant Income										
5410 Grant Income	14,867								14,867	
Total 941 - Grant Income	14,867								14,867	
942 - Interest Income Misc										
5010 Interest Earned Misc	14,547								14,547	
5020 Interest DNR Liability	(1,406)								(1,406)	
5030 Interest Investment Income	115,020								115,020	
Total 942 - Interest Income Misc	128,161								128,161	
944 - Gain/(Loss) Investments										
5200 Realized Gain(Loss) on Invest	30,525								30,525	
5210 Unrealized Gain(Loss) Investmt	123,294								123,294	
Total 942 - Interest Income Misc	153,819								153,819	
Total Nonoperating Revenue	**296,848**								**296,848**	
952 - Bond Interest Expense										
6120 Bond Interest Expense 2015 Series	247,195								247,195	
6130 Bond Interest Expense 2019 Series	181,709								181,709	
Total 952 - Bond Interest Expense	**428,904**								**428,904**	
953 - Depreciation Expense										
6300 Depreciation Expense	3,214,176								3,214,176	
Total 953 - Depreciation Expense	**3,214,176**								**3,214,176**	
954 - Grant Expense										
6520 Grant Contractual	17,340								17,340	
Total 954 - Grant Expense	**17,340**								**17,340**	
955 - Misc Nonoperating Expense										
6600 Other Misc Expense	7,783								7,783	
Total 955 - Misc Nonoperating Expense	**7,783**								**7,783**	
Total Nonoperating Expense	**3,668,203**								**3,668,203**	
NET NONOPERATING REVENUE/(EXPENSE)	**(3,371,355)**	-							**(3,371,355)**	-
Change in Net Position									**103,096**	**2,640,657**

These regulations went into effect on April 1 and extend through December 31, 2020. "C19 202003" refers to payroll prior to Apr 1 under a SEAPA-mandated quarantine.

Southeast Alaska Power Agency

R&R Summary - Capital Expenditures - Actual to Budget

as of **August 31, 2020**

	2020 EXPENDITURES	2020 BUDGET	PRIOR YRS EXPENDITURES	OVERALL EXPENDITURES	Overall Budget through 2020
RR19301 - Discon Switch-Surge	20,386	66,394	25,981	46,367	92,375
RR19305 - Governr PLC Mod TYL	75,256	93,302	-	75,256	93,302
RR19307 - Helipads Cleveland	-	-	18,626	18,626	18,626
RR19308 - HPU TYL Gatehs	68,906	205,980	-	68,906	210,140
RR19314 - Statn Service Switch	58,017	1,286,893	185,565	243,581	1,300,000
RR19326 - Don Finney Ln Design	-	20,000	4,120	4,120	25,000
* RR19327 - Fire Protect Upgrade	48,845	54,500	-	48,845	54,500
RR19329 - Security Upgrades	-	39,847	5,154	5,154	45,000
* RR19330 - Servers KTN	1,704	6,462	26,400	28,103	32,800
RR19331 - STCS-HMI-Historian	100,312	100,000	-	100,312	100,000
* RR19332 - Accounting Software	1,185	1,200	33,709	34,894	35,950
* RR19333 - 125V Battery Bank	25,448	97,750	-	25,448	97,750
* RR19335 - Stuffing Box Unit 2 SWL	101,748	125,000	-	101,748	125,000
* RR20336 - ATV-Snow Plow	28,688	30,000	-	28,688	30,000
RR20337 - Excitation Brush Vacuum SWL	1,433	50,100	-	1,433	50,100
RR20338 - Excitation Brush Vacuum TYL	2,394	59,700	-	2,394	59,700
RR20339 - Guy Thimbles STI Phase II	1,810	93,000	-	1,810	93,000
RR20340 - HewesNet Structure	21,956	40,000	-	21,956	40,000
RR20341 - Intake Gate Refurbish TYL	18,346	251,300	-	18,346	251,300
* RR20342 - Mower Attachment for Excavator SWL	34,034	29,700	-	34,034	29,700
RR20343 - Partial Discharge Monitors SWL	85,204	98,230	-	85,204	98,230
RR20344 - Spillway Recovery Davit	-	12,500	-	-	12,500
RR20345 - Stationary Winch SWL	-	10,000	-	-	10,000
RR20346 - XFMR Dif Relay Bailey	3,420	22,000	-	3,420	22,000
* RR20347 - Marker Ball Tie Wrap Carroll Inlet	543	95,250	-	543	95,250
RR20348 - Cooling Water Pumps TYL	38,031	65,900	-	38,031	65,900
RR28618 - Housing SWL	509,134	780,475	13,318	522,452	793,800
Total All RR Projects	1,246,800	3,735,483	312,871	1,559,672	3,881,923

* Completed R&R projects as of Aug 31, 2020

* Marker Ball Tie Wrap completed in Sep 2020

Overall budget is through December 2020 and does not include anticipated budget figures for 2021.

SOUTHEAST ALASKA POWER AGENCY

Revenue Fund 1,109,169.37
Dedicated R&R Fund . 542,386.82
Commercial Checking . **$ 1,651,556.19**

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DISBURSEMENTS
JUN-AUG 2020

VENDOR		REVENUE FUND	R&R FUND
3 Star Inc		-	4,335.90
Aero Services - KTN		-	35.88
Alaska Airlines Cargo		47.00	-
Alaska Marine Lines		103.88	-
Alaska Metal Goods Inc		-	20,811.00
Alaska Permanent Capital, Inc		5,198.46	-
Alpine Mini Mart		131.77	-
Amazon.com		5,558.15	1,830.08
Angerman's Inc		191.85	-
Anixter Power Solutions LLC		2,520.00	-
Applied Industrial Technologies Inc		-	33,061.56
Arrowhead LP Gas WRG		-	101.50
Ascent Law Partners LLP		24,912.00	-
Bank of America - May		15,580.89	-
Bank of America - June		13,223.54	
Bank of America - July		17,609.21	647.54
Bay Company		1,561.05	-
Bay Company WRG		1,498.95	-
BDO USA LLP		7,800.00	-
Belzona Technology Northwest LLC		-	879.10
Brown & Kysar Inc		4,000.00	-
Buness Electric LLC		141.00	-
Bureau Veritas North America		100.60	-
Byron Construction LLC	RR286-18 Housing SWL	-	326,000.00
C&T Fire Protection Inc		9,047.05	-
Cambria Properties LLC		4,575.00	-
Center Marine Services Inc		14,800.00	-
City Market Inc		678.12	-
CoastAlaska, Inc		2,301.00	-
Crowley Fuels LLC		60.78	-
Daily Journal of Commerce		122.40	-
Electric Power Systems Inc		2,331.50	855.00
Federal Energy Regulatory Commission	Administrative Fees Bill Year 2020	59,640.54	-
FedEx		226.38	1,065.52
First Bank		135.00	-
First City Electric, Inc		4,462.38	3,642.64
G2 Risk Consulting		3,768.75	-
Gage Tree Service LLC	Right-of-way Clearing	86,500.00	-
Grainger		1,466.18	1,313.13
Hammer & Wikan, Inc		928.57	-
HDR Alaska, Inc		4,406.16	-
Helicopter Air Alaska LLC		1,026.00	-
Jaco Analytical Lab, Inc		848.25	-
Johnson's Building Supply		120.00	552.00
Juneau Alaska Communications		2,565.30	-
Kemppel Huffman and Ellis PC		12,900.00	-
Ketchikan Daily News		527.15	128.65

SOUTHEAST ALASKA POWER AGENCY

Revenue Fund 1,109,169.37
Dedicated R&R Fund . 542,386.82
Commercial Checking . **$ 1,651,556.19**

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DISBURSEMENTS
JUN-AUG 2020

VENDOR		REVENUE FUND	R&R FUND
Ketchikan Gateway Borough		15,274.59	-
Ketchikan Ready Mix & Quarry, Inc		8,400.00	-
Ketchikan Stitches		20.00	-
Kutak Rock Arbitrage Consulting LLC		2,000.00	-
Landing Hotel		-	1,034.10
Les Schwab		7,945.59	-
Litostroj Hydro Inc		6,807.00	9,035.70
LNM Services		182.15	-
Lorman Education Services		349.50	-
Lynn, Bob		110.70	-
Madison Lumber & Hardware Inc		3,284.48	2,743.90
Mallory Safety and Supply		151.94	-
Marble Construction		963.00	-
Marsh USA Inc		216.00	-
McMaster-Carr Supply Company		-	726.66
McMillen Jacobs Associates		20,144.00	-
Menzies Engineering Group Inc		3,255.00	-
My Place Hotel - Ketchikan		3,510.00	-
NC Machinery Co		916.35	-
Nexus Controls LLC		-	43,287.00
NRECA Group Ins	Admin Employee Benefits	61,285.86	-
NRECA RSP Retirement	Admin Employee Benefits	66,316.12	-
Ottesen's Inc		1,785.35	185.54
Pacific Pride of Alaska, LLC		-	1,788.49
Pacific Wings Inc		2,530.00	-
Petro Marine Services-KTN		1,116.80	905.31
Petro Marine Services-WRG		8,070.60	2,450.05
Pilot Publishing, Inc		88.00	97.50
PND Engineers		1,187.50	-
Precision Process Solutions		2,310.78	-
R&M Engineering-Ketchikan, Inc		1,025.00	-
Ray Matiashowski		12,000.00	-
Redvector		1,560.37	-
Samson Tug & Barge		453.54	2,168.01
Satellite & Sound, Inc		5,995.00	-
Scandia House Hotel		2,072.00	-
SE Business Machines		591.95	-
SEARHC Accts Rec		525.00	-
SEARHC Patient Pays		177.49	-
Segrity LLC	SCADA, RR19305 Governot PLC TYL, RR19331STCS-HMI-Hist	5,322.21	38,332.50
Sentry Hardware & Marine		1,862.72	34.76
Serenity Health & Wellness LLC		396.00	-
Service Auto Parts		768.59	344.55
Slatercom-WCD		6,598.00	-
Sockeye Business Solutions Inc		17,021.83	-
Southeast Auto & Marine Parts, Inc		1,438.56	221.72
Southeast Conference		700.00	-

SOUTHEAST ALASKA
POWER AGENCY

Revenue Fund 1,109,169.37
Dedicated R&R Fund . 542,386.82
Commercial Checking . **$ 1,651,556.19**

-

DISBURSEMENTS
JUN-AUG 2020

VENDOR		REVENUE FUND	R&R FUND
Southeast Diesel & Electric		87.76	-
Stikine Inn		-	213.00
Sunrise Aviation Inc		20,241.25	7,393.75
Svendsen Marine LLC		-	430.15
Tacoma Screw Products Inc		662.31	-
Tamico Inc		597.40	-
Taquan Air		8,320.00	1,040.00
Temsco Helicopters Inc		40,086.83	-
TexRus LLC		14,303.09	14,875.68
Timber & Marine Supply Inc		1,062.29	23.95
Tongass Business Center Inc		786.75	-
Tongass Engineering LLC		-	19,360.00
Tongass Trading Company Inc		481.09	-
TSS		14,791.00	-
Tyler Industrial Supply		155.49	-
US Geological Survey		17,000.00	-
Wells Fargo Bank MN		7,250.00	-
Wells Fargo Bank-Corporate Trust	Debt Service - 2015 & 2019 Series Bonds	366,615.00	-
Woffinden, Jeimi		180.00	-
Workforce Go		460.00	-
Wrangell City & Borough		21,270.84	-
Wrangell IGA Inc		563.64	-
Wrangell Machine		220.00	357.00
Wrangell Sentinel		96.00	78.00
X2nSat		4,276.00	-
Grand		1,109,169.37	542,386.82

Agenda Item 6A

Community Covid-19 Updates

Discussion Item Only

Agenda Item 6B

Capital Planning Review Process

Discussion Item Only

SEAPA 2016
Renewal & Replacement & Risk Reserve (4R) Plan
attached for Reference

Renewal & Replacement and Risk Reserve (4R) Plan

June 9, 2016
FINAL REPORT

Prepared for
The Southeast Alaska Power Agency
Ketchikan, Alaska

by

DHITTLE & ASSOCIATES, INC.
Engineers and Consultants

Lynnwood, Washington

Southeast Alaska Power Agency
Renewal & Replacement and Risk Reserve (4R) Plan

Table of Contents

Southeast Alaska Power Agency
4R Plan

Introduction

This Renewal & Replacement and Risk Reserve Plan (the "4R Plan") has been prepared at the direction of the Southeast Alaska Power Agency (SEAPA) to assist SEAPA with its planning and budgeting process. In the past, SEAPA's predecessor agency, the Four Dam Pool Power Agency (FDPPA) was required to develop renewal and replacement plans ("R&R Plans") every five years in accordance with the provisions of its loan and indenture of trust agreements[1]. Currently, no specific requirements for the 4R Plan are defined in any specific documents or agreements; however, SEAPA has determined that reviewing its future renewal and replacement expenditures and risk reserves in a similar manner to the previous R&R Plans is a useful planning effort. As such, this 4R Plan has been prepared employing the same approach as used in the 2002, 2007 and 2014 R&R Plans.

SEAPA's system consists of two hydroelectric generation plants and accompanying transmission facilities located in Southeast Alaska (the Project or Projects). Power is sold from the Projects pursuant to a 25-year Power Sales Agreement effective in February 2009 to Ketchikan Public Utilities, Wrangell Municipal Light & Power, and Petersburg Municipal Power & Light (jointly, the Purchasers).

The general purpose of the 4R Plan is to establish long-term estimated costs of the renewal and replacement (R&R) activities that will be needed to keep the Projects fully functional and in good operating condition over the next 30 years. The 4R Plan also includes a schedule of annual payments to be made to SEAPA's Dedicated Renewal and Replacement Fund (R&R Fund). The schedule of R&R Fund payments, when combined with accrued interest earnings, future borrowings and other contributions from the Purchasers, is to be sufficient to fund the R&R costs as they occur in the future.

It is important to note that the R&R costs included in this report are expected to serve as a basis for future planning but, for the most part, do not represent known actual expenditure requirements. In total, it is expected that over the next 30 years, actual R&R expenditures should approximate the costs included in the 4R Plan but could vary significantly. Further, SEAPA will have a fair amount of flexibility in planning and undertaking R&R tasks in the future which will allow for a more level stream of expenditures than is depicted in this report. It is recommended that SEAPA evaluate immediate R&R needs each year as part of its normal budgeting process. The 4R Plan

[1] Pursuant to the provisions of the Indenture of Trust by and between the Four Dam Pool Power Agency and Wells Fargo Bank, National Association dated October 1, 2004, a requirement for annual payments to the Repair, Replacement, Risk and Reclamation Reserve Fund (5R Fund) was established. The schedule of annual 5R Fund payments, when combined with accrued interest earnings, future borrowings and other contributions from the Four Dam Pool Power Purchasers, was to be sufficient to fund R&R costs as they occurred in the future. The required schedule of payments into the fund were eliminated upon the reorganization of the Four Dam Pool Power Agency into SEAPA.

should be addressed in formulating near-term budgets and as necessary, the 4R Plan should be adjusted to appropriately reflect the operating condition of the Projects.

In addition to the funding of future R&R costs, a separate Self Insured Risk Fund has been established to pay certain uninsurable losses that could occur in the future. The recommended minimum balance in the Self-Insured Risk Fund based on an evaluation of potential loss contingency amounts is provided in this report and should be reviewed periodically to ensure appropriate coverage.

Project Facilities

The primary Project facilities are described as follows:

Swan Lake Project – The Swan Lake project is located on Revillagigedo Island at the head of Carroll Inlet, about 22 miles northeast of the city of Ketchikan. Primary facilities include a 174-foot tall concrete thin arch dam, a 2,217-foot long power tunnel and a powerhouse with two generating units having a combined nominal generating capacity of 25 MW. The project includes a substation at the powerhouse and the Bailey Substation in Ketchikan. The substations are connected by approximately 30.5 miles of 115-kV transmission line. The Swan Lake Project began commercial operation in April 1985.

Tyee Lake Project – The Tyee Lake Project is located approximately 40 miles southeast of Wrangell and uses a lake tap intake to withdraw water from Tyee Lake. The Project includes the lake tap intake, a drop shaft, an 8,300-foot long unlined power tunnel, a 1,350-foot long steel penstock and a powerhouse. There are two generating units with a combined nominal capacity of 25 MW. The project includes a substation at the powerhouse, the Wrangell switchyard, Wrangell Substation and Petersburg Substation. Approximately 70.5 miles of 138-kV transmission line[2] and 11.4 miles of submarine cable, in four separate marine crossings, interconnect the Tyee Lake Project to the communities of Wrangell and Petersburg. The Project began commercial operation in May 1984.

Swan – Tyee Intertie - The Swan-Tyee Intertie (STI) is a 57-mile long 138-kV transmission line that interconnects the Tyee Lake and Swan Lake hydroelectric projects. Prior to completion of the STI in 2009, the Tyee Lake project only served Wrangell and Petersburg and the Swan Lake project only served Ketchikan. The STI provides for greater utilization of the capability of the Tyee Lake project, greater turbine efficiency of operation at the Swan Lake project, sharing of spinning reserves, as well as for integrated operation of all hydroelectric generation in the interconnected Petersburg, Wrangell and Ketchikan system. Further benefits of the STI should include improved reliability in the interconnected system and more effective scheduling of maintenance outages for the hydroelectric units.

[2] The Lake Tyee transmission system is designed for 138-kV but is presently operated at 69-kV.

Methodology

Kepler Consultants (Kepler) and Dryden & LaRue (D&L) were retained by the SEAPA in 2012 to evaluate the condition of and revise the basis for the estimated future R&R expenditures for the Project hydroelectric and transmission facilities, respectively. The effort undertaken by Kepler and D&L in 2012 included condition assessments of the Project facilities, operator interviews, review of operating records and past performance, evaluation of component remaining service life and estimation of future R&R costs. Both Kepler and D&L relied upon the approach established by Harza Engineering Company (Harza) in an earlier study conducted in 1995 to determine the need for eventual component replacements and estimate the costs of these replacements. An update of the Harza report was conducted in 2001 by Duke Engineering & Services (Duke) and D&L. Duke, D&L and Harza submitted reports to the Four Dam Pool Project Management Committee summarizing their respective studies.[3] Devine, Tarbell and Associates and D&L conducted an updated review of the Four Dam Pool facilities in 2006[4]. D&L submitted a report to SEAPA summarizing the results of its 2012 studies[5].

As part of its study in 1995, Harza performed a risk assessment that estimated the probable cost of repair to Project facilities resulting from a number of relatively infrequent events such as earthquake, flood and avalanche. D&L updated the Harza risk assessment for the Project transmission facilities. Duke reviewed and commented on the assumptions used by Harza with regard to the Project hydroelectric facilities but did not perform an update of the analysis.

In their respective reports, Duke and D&L provided detailed estimates of the expected service life and replacement costs of the various components of the hydroelectric and transmission systems in the Four Dam Pool. The methodology employed by both Kepler and D&L was similar to that used by Harza in 1995 and Duke and D&L in 2001. The expected service life of each component was based on industry experience for comparable components, the age of the existing components, and the condition of the existing components. The cost to replace each component was estimated based on the estimated cost of replacing the component under current cost conditions.

The Project assessments and estimated R&R costs prepared by Kepler and D&L were conducted relatively recently and are of sufficient detail to serve as the basis for the 4R Plan. Using the expected service life and replacement cost estimates from the Kepler and D&L reports, an annual schedule of expected R&R expenditures through 2046 has been developed. In addition to these

[3] *Independent Engineering Review of the Four Dam Pool Projects*, Duke Engineering & Services, February 2001; *Updated Risk Assessment of the Four Dam Pool Projects – Substations and Transmission Lines*, Dryden & LaRue, February 2001*; Risk Assessment of the Four Dam Pool Hydroelectric Projects*, Harza Engineering Company, February 1996.

[4] *Four Dam Pool Power Projects, 2006 Update to the Repair, Replacement and Reclamation Plan and Related 5R Fund*, Devine Tarbell & Associates, Inc., December 22, 2006; *Updated Risk Assessment of the Four Dam Pool Projects – Substations and Transmission Lines*, Dryden & LaRue, January 8, 2007.

[5] *The Southeast Alaska Power Agency, Year 2012 4R Plan Revision, For the Swan Lake, Tyee Lake and Swan-Tyee Intertie Transmission Lines and Substations,* Dryden & LaRue, September 12, 2012.

long-range estimates of R&R expenditures, a near-term list of R&R expenditures has also been developed based on the specific needs of the Projects as determined by SEAPA.

For the purpose of the 4R Plan, the schedule of R&R expenditures derived from the Kepler and D&L reports has been adjusted to include assumed inflation. The present value of the total costs was calculated and a schedule of annual deposits has been developed that will establish sufficient funds to pay the estimated R&R costs when they are presently expected to occur. The schedule of deposits reflects the assumption that through 2046, none of the estimated R&R expenditures will be funded from new debt except for the estimated replacement of major transmission lines.

Assumptions

Basic assumptions included in the 4R Plan are as follows:

- General inflation of 2.4% per year
- R&R costs will escalate at 115% the rate of general inflation[6]
- Annual interest earnings rate of 0.8% on invested funds[7]
- Discount rate of 2.4%[8]

[6] Based on a review of historical relationship between construction cost increases and general inflation between 2006 and 2015.
[7] Although the assumed interest earnings rate is relatively low compared to rates experienced in the past, it is consistent with the experience of SEAPA in recent years.
[8] The discount rate, used for present value calculations, has been set equal to the assumed interest earnings rate.

Projected R&R Expenditures

Long-term R&R

Using the expected service life and replacement cost estimates from the Kepler and D&L reports, an annual schedule of expected "long-term" R&R expenditures has been developed. The total costs, in 2012 year dollars, are shown in Table 1 separated into six primary categories. Detailed costs for each Project are shown in Appendix A. For the purpose of the 4R Plan, long-term expenditures are those costs shown in Table 1 as derived from the Kepler and D&L reports, even though some of these costs are shown to occur relatively soon.

As can be seen in Table 1, total R&R expenditures through 2046 are estimated to be $115,617,000 at 2012 cost levels. Of this amount, $71,172,000 or 61.6% is for the replacement of transmission lines and submarine cables. Another $14,741,000 is for the repair and replacement of the Project substations and switchyards. Table 2 and Figure 1 provide a breakdown of the total long-term R&R costs by Project. Any new projects that SEAPA may develop or acquire would increase the estimated future R&R costs shown in Table 1 and Table 2.

Table 1
Estimated Total R&R Expenditures – All Projects
Fiscal Years 2017 - 2046
(2012 Cost Levels - $000)

Fiscal Year	Turbines & Generators	Civil Structures	Transmission Lines	Substations & Switchyards	Rolling Stock	Other	Total
2017	336	150	150	375	-	287	1,298
2018	-	-	-	1,154	53	536	1,743
2019	2,223	-	-	1,318	261	95	3,897
2020	-	-	-	378	-	82	460
2021	-	-	-	305	42	-	347
2022	-	-	-	-	340	51	391
2023	239	-	-	470	354	200	1,263
2024	2,318	1,749	9,400	5,478	-	1,046	19,991
2025	-	-	-	1,674	-	-	1,674
2026	1,062	-	-	-	-	-	1,062
2027	-	-	-	-	-	152	152
2028	-	-	-	-	8	239	247
2029	-	-	-	65	-	318	383
2030	660	-	-	122	28	-	810
2031	-	-	-	-	-	-	-
2032	258	-	-	-	-	280	538
2033	-	-	-	270	-	537	807
2034	3,300	1,829	54,252	980	37	1,000	61,398
2035	-	-	-	235	42	299	576
2036	400	-	970	381	67	2,295	4,113
2037	-	-	-	80	-	-	80
2038	-	-	-	-	12	-	12
2039	-	-	-	326	-	597	923
2040	3,190	-	-	280	250	82	3,802
2041	-	-	-	600	38	37	675
2042	-	-	-	250	45	51	346
2043	-	-	-	-	-	280	280
2044	78	-	6,400	-	-	370	6,848
2045	-	-	-	-	-	-	-
2046	1,062	89	-	-	-	350	1,501
Total	$ 15,126	$ 3,817	$ 71,172	$ 14,741	$ 1,577	$ 9,184	$ 115,617
% of Total	13.1%	3.3%	61.6%	12.7%	1.4%	7.9%	100.0%

Table 2
Total Estimated Total R&R Expenditures
Fiscal Years 2017 – 2046

(2012 Cost Levels - $000)

	Swan Lake	Tyee Lake	Total
Generation Facilities	$ 14,452	$ 13,675	$ 28,127
Transmission Facilities	19,493	66,420	85,913
Rolling Stock	337	1,240	1,577
Total	$ 34,282	$ 81,335	$ 115,617

Figure 1
Project Percentage of Total Estimated Total R&R Expenditures
Fiscal Years 2017 – 2046

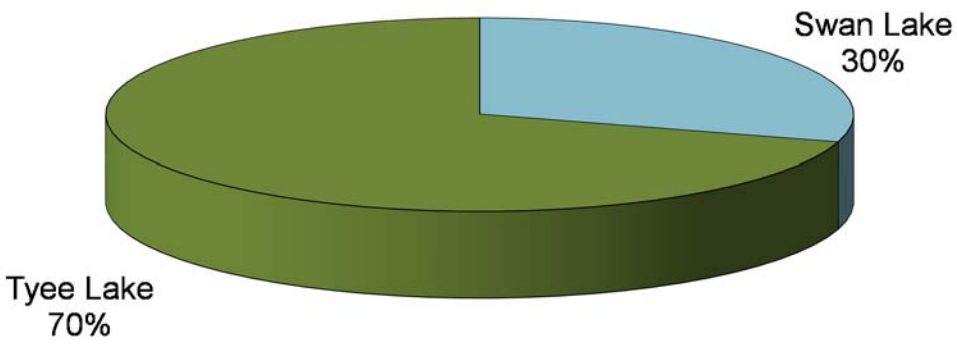


Table 3 shows the estimated R&R expenditures with estimated escalation between 2012 and 2016 of 7.2%[9] and assumed inflation applied beginning in 2016 at an effective rate of 2.76% per year (115% of 2.4%). The total inflated R&R expenditure requirement is $194,309,000 through 2046, as shown in Table 3.

[9] Based on the reported costs of hydraulic plant construction for the Pacific Region provided in the Handy-Whitman Index of Public Utility Construction Costs.

Table 3
Estimated Total Long-Term R&R Expenditures – All Projects
Fiscal Years 2017 - 2046
(Nominal Cost Levels w/Inflation - $000)

Fiscal Year	Turbines & Generators	Civil Structures	Transmission Lines	Substations & Switchyards	Rolling Stock	Other	Total
2017	370	165	165	413	-	316	1,429
2018	-	-	-	1,306	60	607	1,973
2019	2,586	-	-	1,533	304	111	4,534
2020	-	-	-	452	-	98	550
2021	-	-	-	375	52	-	427
2022	-	-	-	-	429	64	493
2023	310	-	-	610	459	259	1,638
2024	3,090	2,331	12,529	7,301	-	1,394	26,645
2025	-	-	-	2,293	-	-	2,293
2026	1,495	-	-	-	-	-	1,495
2027	-	-	-	-	-	220	220
2028	-	-	-	-	12	355	367
2029	-	-	-	99	-	486	585
2030	1,036	-	-	191	43	-	1,270
2031	-	-	-	-	-	-	-
2032	428	-	-	-	-	464	892
2033	-	-	-	460	-	914	1,374
2034	5,775	3,201	94,939	1,715	65	1,750	107,445
2035	-	-	-	423	76	538	1,037
2036	739	-	1,792	704	124	4,241	7,600
2037	-	-	-	152	-	-	152
2038	-	-	-	-	23	-	23
2039	-	-	-	654	-	1,197	1,851
2040	6,573	-	-	577	515	169	7,834
2041	-	-	-	1,270	80	78	1,428
2042	-	-	-	544	98	111	753
2043	-	-	-	-	-	626	626
2044	179	-	14,704	-	-	850	15,733
2045	-	-	-	-	-	-	-
2046	2,577	216	-	-	-	849	3,642
Total	$ 25,158	$ 5,913	$ 124,129	$ 21,072	$ 2,340	$ 15,697	$ 194,309
% of Total	12.9%	3.0%	63.9%	10.8%	1.2%	8.1%	100.0%

Near-term R&R

SEAPA has prepared a two year projection of renewal and replacement expenditures with estimated 2017 and 2018 expenditures totaling 6,940,300. Due to SEAPA's fiscal year-end falling in the middle of the typical construction season, most projects span more than one year. SEAPA's R&R budget generally includes expense projects exceeding $25,000, work-in-progress R&R capital projects and scheduled R&R capital projects. It is presumed that the SEAPA budgeted costs include the tasks that are defined in the D&L report as well as other costs. A summary of the near-term costs as provided in SEAPA's R&R budget are shown in Table 4. The specific tasks and cost estimates are shown in Table A-3 in Appendix A.

Table 4
Estimated Near-Term R&R Expenditures
Source: SEAPA Budget Projections

	2017	2018
Total Capital Expenditures	$ 3,816,300	$ 3,124,000

Total R&R Costs

For the purpose of the 4R Plan, the estimated total R&R expenditures are the combined long-term and near-term costs. The near-term costs, as shown in Table 4, are assumed to comprise the full R&R expense for 2017 and 2018. Thereafter, the long-term costs shown in Table 3 are assumed to comprise the full annual R&R expense. In addition, an allowance of $800,000 (2016 cost level) for each of six years for Federal Energy Regulatory Commission (FERC) relicensing costs has been provided beginning in 2028. The total R&R costs are shown in Table 5.

Table 5
Estimated Total R&R Expenditures – All Projects
Fiscal Years 2017 - 2046
(Nominal Cost Levels w/Inflation - $000)

Fiscal Year	Total Long-Term (1)	Near Term (2)	Normal R&R (3)	Relicensing (4)	Total
2016					
2017	-	3,816	-	-	3,816
2018	-	3,124	-	-	3,124
2019	4,534	-	35	-	4,569
2020	550	-	35	-	585
2021	427	-	35	-	462
2022	493	-	35	-	528
2023	1,638	-	50	-	1,688
2024	26,645	-	50	-	26,695
2025	2,293	-	50	-	2,343
2026	1,495	-	50	-	1,545
2027	220	-	50	-	270
2028	367	-	65	1,060	1,492
2029	585	-	65	1,090	1,740
2030	1,270	-	65	1,120	2,455
2031	-	-	65	1,140	1,205
2032	892	-	65	1,170	2,127
2033	1,374	-	75	1,200	2,649
2034	107,445	-	75	-	107,520
2035	1,037	-	75	-	1,112
2036	7,600	-	75	-	7,675
2037	152	-	75	-	227
2038	23	-	85	-	108
2039	1,851	-	85	-	1,936
2040	7,834	-	85	-	7,919
2041	1,428	-	85	-	1,513
2042	753	-	85	-	838
2043	626	-	85	-	711
2044	15,733	-	85	-	15,818
2045	-	-	85	-	85
2046	3,642	-	85	-	3,727
Total 17-46	$ 190,907	$ 6,940	$ 1,855	$ 6,780	$ 206,482

footnotes to Table 5
(1) See Table 3. Near-term costs are assumed to preclude the long-term costs in 2017.
(2) Assumes near-term R&R costs as estimated by SEAPA. See Table 4.
(3) Assumed level of R&R expenditures for normal, non-specific purposes.
(4) Assumes costs of $800,000 per year (2016 cost levels) for each of six years for FERC relicensing costs.

As can be seen in Table 5, total R&R expenses through 2046 are estimated to be $206,482,000. An amount of $1,855,000 has been included in the overall total for normal, non-specific purposes.

Funding Requirements

It is expected that the R&R expenditures will be funded from three primary sources: (1) annual contributions paid to the Dedicated R&R Fund as part of the annual operating budget; (2) funds on deposit currently in the Dedicated R&R Fund; and (3) accrued interest earnings on monies in the 4R Plan[10]. Each year, an amount can be deposited in the 4R Plan so that sufficient funds are available to pay the total R&R expenditures as they are incurred in each year.

In the 2012 R&R Plan, it was assumed that a portion of the costs related to transmission system R&R costs (transmission lines, submarine cables, major substation and switchyards work) would be funded with new borrowings in the future. This is appropriate because of the significant cost of constructing these facilities and the long period (40 to 60 years) of usable operation that is generally experienced with them. For the 2016 4R Plan, major transmission replacement costs are estimated to occur in 2024 and 2034. As a result, it is assumed that these major transmission costs will be debt funded in the years in which they occur.

Table 6 provides a funding plan for the R&R costs shown in Table 5 on an annual basis through 2046. The funding plan shown in Table 6 is based on a single R&R fund concept for illustrative purposes.

[10] Includes funds in the Dedicated R&R Fund, the Restricted R&R Reserve and the Self-Insured Risk Fund.

Table 6
Estimated Total R&R Funding
Fiscal Years 2017 - 2046
(Nominal Cost Levels w/Inflation - $000)

Fiscal Year	Total Expenditures (1)	Debt Funded (2)	Net R&R Fund Funded (3)	Total Funding
2017	3,816	-	3,816	3,816
2018	3,124	-	3,124	3,124
2019	4,569	-	4,569	4,569
2020	585	-	585	585
2021	462	-	462	462
2022	528	-	528	528
2023	1,688	-	1,688	1,688
2024	26,695	12,529	14,166	26,695
2025	2,343	-	2,343	2,343
2026	1,545	-	1,545	1,545
2027	270	-	270	270
2028	1,492	-	1,492	1,492
2029	1,740	-	1,740	1,740
2030	2,455	-	2,455	2,455
2031	1,205	-	1,205	1,205
2032	2,127	-	2,127	2,127
2033	2,649	-	2,649	2,649
2034	107,520	94,939	12,581	107,520
2035	1,112	-	1,112	1,112
2036	7,675	-	7,675	7,675
2037	227	-	227	227
2038	108	-	108	108
2039	1,936	-	1,936	1,936
2040	7,919	-	7,919	7,919
2041	1,513	-	1,513	1,513
2042	838	-	838	838
2043	711	-	711	711
2044	15,818	-	15,818	15,818
2045	85	-	85	85
2046	3,727	-	3,727	3,727
	$ 206,482	$ 107,468	$ 99,014	$ 206,482

(1) Estimated R&R expenditures. See Table 5.
(2) Transmission related R&R costs assumed to be funded with new debt.
(3) R&R costs funded from amounts in the Dedicated R&R Fund.

Required Annual Payments to Dedicated R&R Fund

In order to achieve the necessary funding shown in Table 6, it will be necessary for SEAPA to make regular annual deposits to the Dedicated R&R Fund. Monies accrued in the Dedicated R&R Fund, when combined with interest earnings, will need to be sufficient to pay the estimated R&R costs that are not expected to be funded with borrowings.

Assuming an annual payment is to be made to the Dedicated R&R Fund through the entire period, 2017 through 2046, to fund anticipated R&R expenditures, the annual payment requirement is as follows:

Table 7
Required Annual Payment to Dedicated R&R Fund for R&R Costs
Fiscal Years 2017 – 2046

Fiscal Years 2017 through 2021	$ 2,552,000
Fiscal Years 2022 through 2026	$ 2,852,000
Fiscal Years 2027 through 2036	$ 3,152,000
Fiscal Years 2037 through 2046	$ 3,252,000

Based on the annual payments shown in Table 7, the balance of the 4R Plan on an annual basis is estimated as shown in Table 8. The initial balance in the fund is estimated to be $14,096,000 at the beginning of fiscal year 2017. This includes an estimated balance of $5,096,000 in the Dedicated R&R Fund, $1,000,000 in the Restricted R&R Reserve and $8,000,000 in the Self-Insured Risk Fund.

Table 8
Combined 4R Plan Annual Activity and Balance
Fiscal Years 2017 - 2046
(Nominal Cost Levels w/Inflation - $000)

Fiscal Year	Deposit to R&R Fund (1)	Less: Net R&R Costs (2)	Interest Earnings (3)	Balance (Year End)(4)
2016				14,096
2017	2,552	3,816	108	12,940
2018	2,552	3,124	101	12,469
2019	2,552	4,569	92	10,544
2020	2,552	585	92	12,603
2021	2,552	462	109	14,802
2022	2,852	528	128	17,254
2023	2,852	1,688	143	18,561
2024	2,852	14,166	103	7,350
2025	2,852	2,343	61	7,920
2026	2,852	1,545	69	9,296
2027	3,152	270	86	12,264
2028	3,152	1,492	105	14,029
2029	3,152	1,740	118	15,559
2030	3,152	2,455	127	16,383
2031	3,152	1,205	139	18,469
2032	3,152	2,127	152	19,646
2033	3,152	2,649	159	20,308
2034	3,152	12,581	125	11,004
2035	3,152	1,112	96	13,140
2036	3,152	7,675	87	8,704
2037	3,252	227	82	11,811
2038	3,252	108	107	15,062
2039	3,252	1,936	126	16,504
2040	3,252	7,919	113	11,950
2041	3,252	1,513	103	13,792
2042	3,252	838	120	16,326
2043	3,252	711	141	19,008
2044	3,252	15,818	102	6,544
2045	3,252	85	65	9,776
2046	3,252	3,727	76	9,377
Total 17-46	$ 91,060	$ 99,014	$ 3,235	

(1) Annual payments to the Dedicated R&R Fund for R&R expenditures as shown in Table 7.
(2) Annual R&R expenditures.
(3) Interest earnings on monies invested in the 4R Plan at an assumed annual interest rate of 0.8%. Assumes deposits and expenditures occur relatively evenly throughout the year.
(4) Balance at fiscal yearend 2016 based on $5,096,000 forecasted balance in the Dedicated R&R Fund, plus $1,000,000 Required R&R Reserve, plus $8,000,000 in the Self-Insured Risk Fund.

Figure 2 shows the estimated annual R&R costs and total annual balance available in the Dedicated R&R Fund.

Figure 2
Projected Annual R&R Expenditures and Dedicated R&R Fund Balance (1)
Fiscal Years 2017 – 2046

(1) Assumes an initial balance of $5,096,000 in the Dedicated R&R Fund, at the beginning of 2017. Transmission expenditures in 2024 and 2034 assumed to be funded with new debt are not included in the R&R costs.

Minimum Reserve Balance (Self Insured Risk Fund)

In the past, SEAPA had established the initial minimum balance for the Self Insured Risk Fund to be $10,000,000 based on a review of potential risks, estimated repair costs and other factors. In recent years the minimum balance has been a policy decision of the Board rather than a provision imposed by lenders or other outside entities. Following a detailed risk assessment, in June 2013, the Board lowered the minimum balance to $8,000,000. The $8,000,000 minimum balance was subsequently included in SEAPA's fiscal year 2014 budget.

For the purpose of this report, the largest single loss contingency of the Projects has been reviewed and used as the basis for the minimum reserve balance. This approach acknowledges that all of the significant risk factors are essentially exclusive of each other. The likelihood of more than one major loss event occurring in any five year period is considered reasonably remote primarily because of the low probability of these types of events as well as the significant physical distance that separates the Projects.

The estimated amounts needed in the Dedicated R&R Fund to pay the renewal and replacement costs at the end of each fiscal year through 2046 are shown in Table 8. The balance in the 4R Plan shown in Table 8 includes the Self Insured Risk Fund balance, the Required R&R Reserve and the Dedicated R&R Fund balance. The total amount of these funds could be used to fund R&R costs in any particular year as long as the Self Insured Risk Fund was restored to its minimum balance in a reasonable amount of time. This gives SEAPA a fair amount of flexibility in how it funds R&R expenses in the future.

In addition to the funding of future R&R costs, the combined amounts shown in the 4R Plan may also be used to pay certain uninsurable losses that could occur in the future. It is important to assure that the minimum balance in the Self Insured Risk Fund is reasonably sufficient to cover these contingencies if it were necessary to pay them. In calculating potential loss contingency amounts and determining if a minimum balance other than $8,000,000 should be retained in the Self Insured Risk Fund, SEAPA should take into account several factors, including: (1) the estimated costs associated with the largest single uninsured risk of the Projects; (2) deductible amounts associated with insurance coverage on the Projects; and (3) the total estimated costs to repair damage to the Projects caused by fire, earthquake, tsunami and other catastrophic events.

Following is a brief description of each of the three factors identified above.

(1) Largest Uninsured Risk Associated with the Projects

SEAPA will retain insurance coverage for all Project facilities except for the transmission systems. Insurance coverage is not generally available at an affordable price for the transmission lines and related facilities. Because of the extensive length of the Project transmission systems, both overhead and underwater, damage that would occur to the lines due to catastrophic events would most likely be localized and would not require repair or replacement of an entire line.

At the present time, the largest single transmission related risk is associated with the submarine cables of the Tyee transmission system. It is conceivable that a single event could cause enough damage to require the full replacement of one of the segments of the submarine cable system along this line. Poseidon Engineering, Ltd. has indicated that $3.2 million should be retained to fund a "worst case scenario" cable failure repair[11]. Further, Poseidon indicated in its 2012 report that the expected cost for replacing a single cable is $5.0 million.

If all four cables at one of the crossings needed to be replaced, the estimated cost as provided by Poseidon is $13.3 million. Using newer technology "dry-type" XLPE cables, if applicable, could lower this cost to $8.8 million as estimated by Poseidon. D&L has estimated that the cost to replace all of the submarine cables is $35.5 million at 2012 cost levels and assuming the future implementation of "dry-type" XLPE cables. Based on the good condition of the existing cables and their design, construction and location, this is considered an unlikely occurrence prior to 2034. Further, since each submarine cable crossing has a reserve cable in place, the loss of any one cable for any reason should not prevent the transmission of power.

Based on these factors, the largest reasonable contingency at the present time related to transmission facilities is $5.0 million to replace a single cable.

(2) Deductible Amounts Associated with Insurance Coverage

The deductible amount on the SEAPA's commercial general liability and property insurance program is $250,000 for most claims. The deductible amount related to floods is the greater of $500,000 or 2% of the total value of locations affected. Earthquake coverage has a deductible amount of the greater of $500,000 or 5% of the total value of locations affected. Based on estimated values of $57 million and $100 million for the Tyee Lake and Swan Lake Projects[12], respectively, the maximum deductible amount for SEAPA related to earthquakes is $2.85 million for the Tyee Lake project and $5.0 million for the Swan Lake project. Since both projects are located on the same fault line, the total deductible from a single event could be as high as $7.85 million.

[11] *2012 Assessment of the Condition of the Submarine Cables On the Lake Tyee Project*, dated July 23, 2012 by Poseidon Engineering, LLC.
[12] Based on book values of the projects which are significantly less than the replacement costs.

In a report entitled "Earthquake Exposure Analysis for SEAPA Alaska Properties" prepared by Marsh & McClennan Companies for SEAPA in March 2012, it was indicated that the maximum loss estimate for a specific event affecting the greatest values for the Projects is $5.6 million. Further, it is estimated that the event causing the highest loss estimate affecting the Projects could cause as much as a $15.04 million loss. Based on these estimates for a maximum credible event, the $7.85 million deductible amount is a reasonable reserve amount for earthquake damage.

(3) Total Estimated "Risk" Costs

In its 1996 report, Harza developed an analysis of the mean annual repair costs associated with project risks[13]. Harza's analysis defined the likelihood and severity of various risk events as well as estimated a range of costs to repair damage to the Project facilities caused by these events. A levelized, annual cost (or mean annual cost) of repair due to project risks was further estimated. The mean annual repair cost acknowledges the sporadic nature of required repairs due to project risks. In its February 2001 report, D&L provided an updated estimate of the mean annual repair costs associated with project risks for transmission and substation components of the Projects. The following table summarizes the estimated costs for each project. D&L did not indicate any recommended adjustment to the repair costs shown in Table 9 in its most recent report.

Table 9
Mean Annual Repair Costs Associated with Project Risks (1)

	Total	Power Generation Facilities (2)	Transmission Systems (3)
Swan Lake	$ 212,920	$ 125,755	$ 87,165
Lake Tyee	570,577	281,247	289,331
Total	$ 783,497	$ 407,001	$ 376,496

(1) See Tables 6-6, 6-10, 6-14 and 6-18 in the Harza report, dated February 1996. Estimated costs escalated to 2012 cost levels.
(2) Includes costs associated with all Project facilities except transmission lines and submarine cables. Includes costs associated with substations and switchyards.
(3) As estimated by Dryden & LaRue in its February 2002 report. See Tables 6.3, 6.5, 6.7, and 6.9 in the 2002 D&L report.

It is expected that most project risk costs associated with the power generation facilities (i.e. dams, water conveyance systems, power houses, mechanical and electrical equipment and related facilities) will be covered by insurance. As a result, the primary costs to be covered by SEAPA are transmission related costs. A ten year reserve of the amount shown in Table 9 for the costs of project risks associated with transmission systems would be approximately $4.0 million.

[13] Harza defines project risks as "events that occur unexpectedly with a relatively low degree of frequency causing damage to the project, as well as outages".

Recommended Minimum Reserve Balance (Self Insurance Reserve Fund)

The largest amount for the three factors shown above is $7.85 million to provide the full insurance deductible amount associated with a serious earthquake. This amount is also sufficient to pay the cost of a single submarine cable replacement. As a result, the minimum Self Insured Risk Fund balance is $7.85 million.

APPENDIX A

Additional analytical tables (Tables A-1 through A-3)

Table A-1
Estimated Renewal and Replacement Expenditures
Source: SEAPA and Dryden LaRue Reports

Swan Lake
(2012 $000)

	Turbine	Generator & Excitation	Electrical, System & Other	Comm. & SCADA	Rolling Stock	Infrast.	Civil Structures	Switchyard	Substations	T-Lines	Total	5-yr Totals
2017	78	258	250	-	-	37	150	65	-	75	913	
2018	-	-	-	-	-	536	-	65	45	-	646	
2019	299	1,691	-	-	261	95	-	100	-	-	2,446	
2020	-	-	-	-	-	-	-	5	191	-	196	
2021	-	-	-	-	-	-	-	55	-	-	55	4,256
2022	-	-	-	-	39	51	-	-	-	-	90	
2023	239	-	-	-	-	-	-	-	-	-	239	
2024	513	836	956	-	-	-	1,749	1,670	-	7,400	13,124	
2025	-	-	-	-	-	-	-	-	1,674	-	1,674	
2026	-	346	-	-	-	-	-	-	-	-	346	15,473
2027	-	-	-	-	-	-	-	-	-	-	-	
2028	-	-	239	-	-	-	-	-	-	-	239	
2029	-	-	-	-	-	37	-	-	-	-	37	
2030	-	-	-	-	-	-	-	-	122	-	122	
2031	-	-	-	-	-	-	-	-	-	-	-	398
2032	-	258	137	-	-	-	-	-	-	-	395	
2033	-	-	-	-	-	-	-	-	-	-	-	
2034	2,290	-	-	-	37	206	-	125	-	-	2,658	
2035	-	-	-	-	-	-	-	65	170	-	235	
2036	-	-	-	2,000	-	-	-	131	-	970	3,101	6,389
2037	-	-	-	-	-	-	-	-	-	-	-	
2038	-	-	-	-	-	-	-	-	-	-	-	
2039	-	-	-	-	-	-	-	165	-	-	165	
2040	-	-	-	-	-	-	-	-	-	-	-	
2041	-	-	-	-	-	37	-	-	-	-	37	202
2042	-	-	-	-	-	51	-	-	-	-	51	
2043	-	-	250	-	-	-	-	-	-	-	250	
2044	78	-	-	-	-	-	-	-	-	6,400	6,478	
2045	-	-	-	-	-	-	-	-	-	-	-	
2046	-	346	-	350	-	-	89	-	-	-	785	7,564
Totals	3,497	3,735	1,832	2,350	337	1,050	1,988	2,446	2,202	14,845	34,282	34,282

Table A-2
Estimated Renewal and Replacement Expenditures
Source: SEAPA and Dryden LaRue Reports

Tyee Lake
(2012 $000)

	Turbine	Generator & Excitation	Electrical, System & Other	Comm. & SCADA	Rolling Stock	Infrast.	Civil Structures	Switchyard	Substations	T-Lines	Total	5-yr Totals
2017	-	-	-	-	-	-	-	-	310	75	385	
2018	-	-	-	-	53	-	-	-	1,044	-	1,097	
2019	54	179	-	-	-	-	-	293	925	-	1,451	
2020	-	-	-	-	-	82	-	15	167	-	264	
2021	-	-	-	-	42	-	-	250	-	-	292	3,489
2022	-	-	-	-	301	-	-	-	-	-	301	
2023	-	-	183	-	354	17	-	470	-	-	1,024	
2024	557	412	90	-	-	-	-	2,324	1,484	2,000	6,867	
2025	-	-	-	-	-	-	-	-	-	-	-	
2026	716	-	-	-	-	-	-	-	-	-	716	8,908
2027	-	-	-	-	-	152	-	-	-	-	152	
2028	-	-	-	-	8	-	-	-	-	-	8	
2029	-	-	-	-	-	281	-	-	65	-	346	
2030	-	660	-	-	28	-	-	-	-	-	688	
2031	-	-	-	-	-	-	-	-	-	-	-	1,194
2032	-	-	143	-	-	-	-	-	-	-	143	
2033	-	-	-	537	-	-	-	-	270	-	807	
2034	1,010	-	358	-	-	436	1,829	200	655	54,252	58,740	
2035	-	-	299	-	42	-	-	-	-	-	341	
2036	400	-	-	-	67	295	-	250	-	-	1,012	61,043
2037	-	-	-	-	-	-	-	80	-	-	80	
2038	-	-	-	-	12	-	-	-	-	-	12	
2039	-	-	-	597	-	-	-	126	35	-	758	
2040	-	3,190	-	-	250	82	-	280	-	-	3,802	
2041	-	-	-	-	38	-	-	470	130	-	638	5,290
2042	-	-	-	-	45	-	-	250	-	-	295	
2043	-	-	30	-	-	-	-	-	-	-	30	
2044	-	-	370	-	-	-	-	-	-	-	370	
2045	-	-	-	-	-	-	-	-	-	-	-	
2046	716	-	-	-	-	-	-	-	-	-	716	1,411
Totals	3,453	4,441	1,473	1,134	1,240	1,345	1,829	5,008	5,085	56,327	81,335	81,335

TABLE A-3

Near Term Capital Expenditures

Southeast Alaska Power Agency R&R PROJECTS	FY2016 Budget	 Expenditures	WIP CAPITAL PROJECTS 4/30/2016	ANNUAL EXPENDITURES FY17	 FY18
231-13 Helicopter Pads	$ 2,713,260	1,573,773	50 of 105 installed.	500,000	
232-13 Communications Upgrade	$ 301,801	130,565	Completion pending weather.	83,000	
240-13 Cooling Water TYL	$ 105,534	162,440		37,260	
241-13 Stream Gauge TYL	$ 844,525	104,226	Staged; pending weather.	200,000	200,000
252-14 Submarine SpliceSpareTYL	$ 213,000	-	Existing kits evaluated.	213,000	
256-15 Alarm Trip Protection	$ 222,000	49,495		53,011	
258-15 System Control Improvements	$ 88,200	39,787		38,843	
259-15 Turbine Shutoff Valves TYL	$ 209,976	97,124	Partially installed.	35,000	
260-15 Exciters SWL	$ 797,500	371,043	Exciters on site.	415,751	
261-15 Generator Switch Gear SWL	$ 881,000	386,034	Equipment delivery Mar 2016.	484,743	
263-16 CTs-Relay CircSwitcr WRG	$ 201,000	36,000	Preparing for bid.	165,000	
265-16 Marker Balls OHL TYL	$ 600,596	-	Defered Start to FY17	600,596	
269-16 Guy Thimbles STI	$ 204,000	-	Defered Start to FY17	270,000	270,000
270-16 DampenersTYL OHL	$ 99,900	-	Defered Start to FY17	99,900	99,900
271-16 Substation Upgrade WRG	$ 45,025	-	*Project approved Feb 2016.*	45,025	
DNR Easment Survey				275,000	75,000
Needle Position Feedback Assembly TYL				123,000	
Transformer Bushing Replacement				70,000	
Air Emission Valve Piping SWL				35,000	
Manifold Replacement TYL				38,700	
Schweitzer RTAC Upgrades - TYL				33,500	
Helipad Decking Repair TYL (12)					150,000
XFMR Upgrade WRG Substation					595,000
Disconnect/Ground Switch TYL					650,000
Wicket Gate Linkage SWL					30,000
Turbine Stuffing Box SWL					48,000
Helipads, New SWL					320,000
Shop Roof/Equip Shed Siding SWL					150,000
Bunk House Renovation SWL					150,000
SWL Housing Unit #4					386,000
WRG Sub/Switchyd Bldgs					
Total WIP R&R Capital Projects	$ 7,527,317	2,950,487		3,816,329	3,123,900

APPENDIX B

Expected service life and replacement cost tables.

Base data provided by SEAPA and D&L

TABLE B-1
Expected Service Life and Repair/Replacement Costs

Hydroelectric Facilities
Swan Lake

		Kepler Condition 2012	Install Year	Kepler Service Life 2012	Remaining Service Life Years	Kepler Replace Cost 2012 k$	2017	2018	2019	2020	2021	2022	2023
1.00	**Turbine and Other Mechanical Items**												
1.01	Runner	Good	1984	50	18	955	0	0	0	0	0	0	0
	Seal Rings	Good	1984	50	18	239	0	0	0	0	0	0	0
1.02	Wicket Gate replacement	Good	1984	50	18	239	0	0	0	0	0	0	0
	Regulating ring bearings/ bushings	Fair	1984	40	8	119	0	0	0	0	0	0	0
1.03	Remaining Turbine Parts												
	Turbine Guide Bearing	Poor	1984	39	7	239	0	0	0	0	0	0	239
	Turbine Stuffing Box	Fair	1984	30	-2	48	48	0	0	0	0	0	0
	Linkage	Good	1984	30	-2	30	30	0	0	0	0	0	0
	Embeded parts	Good	1984	50	18	239	0	0	0	0	0	0	0
1.04	Governor	Excellent	2009	25	18	418	0	0	0	0	0	0	0
1.05	Butterfly Inlet valve	Excellent	1984	40	8	179	0	0	0	0	0	0	0
1.06	Cooling Water System	Fair	1984	40	8	119	0	0	0	0	0	0	0
1.07	Draft Tube Gate/ Guides	Good	1984	40	8	96	0	0	0	0	0	0	0
1.08	Other Aux Mechanical Equipment	Good	1984	35	3	299	0	0	299	0	0	0	0
1.09	Intake gate	Good	1984	50	18	200	0	0	0	0	0	0	0
2.00	**Generator**												
2.01	Stator	Good	1984	35	3	1194	0	0	1194	0	0	0	0
2.02	Rotor	Good	1984	40	8	836	0	0	0	0	0	0	0
2.03	Bearings	Good	1984	35	3	406	0	0	406	0	0	0	0
2.04	Cooling System	Fair	2006	20	10	346	0	0	0	0	0	0	0
2.05	Sensing Devices	Good	1984	35	3	31	0	0	31	0	0	0	0
2.06	Fire Protection	Good	1984	35	3	60	0	0	60	0	0	0	0
3.00	**Excitation System**	Good	2002	15	1	258	258	0	0	0	0	0	0
4.00	**Electrical System**												
4.01	Battery and chargers	Good	2007	25	16	137	0	0	0	0	0	0	0
4.02	Controls & Protective relaying	Good	2003	25	12	239	0	0	0	0	0	0	0
4.03	Station Service	Good	1984	40	8	179	0	0	0	0	0	0	0
4.04	15kV Switchgear	Good	1991	26	1	250	250	0	0	0	0	0	0
4.05	Cable System	Good	1984	40	8	492	0	0	0	0	0	0	0
5.00	**SCADA System**	New	2016	30	30	350	0	0	0	0	0	0	0
6.00	**Communications**	New	2016	20	20	2000	0	0	0	0	0	0	0
7.00	**Emergency Generator**	Good	1984	40	8	195	0	0	0	0	0	0	0
8.00	**Intake Gate Electrical Controls**	Good	1984	40	8	90	0	0	0	0	0	0	0
9.00	**Rolling Stock**												
9.01	Pickup Truck 4WD w/ snow plow		1992	30	6	39	0	0	0	0	0	39	0
9.02a	Grove crane	sold					0	0	0	0	0	0	0
9.02	Knuckle Boom Truck		1984	35	3	127	0	0	127	0	0	0	0
9.03	Backhoe (John Deere)		1984	35	3	134	0	0	134	0	0	0	0
9.03a	Trackhoe		2015	50	49	220	0	0	0	0	0	0	0
9.04	Bull dozer	sold	1984	50	18		0	0	0	0	0	0	0
9.05	Forklift		1984	50	18	37	0	0	0	0	0	0	0
9.06	Four-Wheel Vehicle (ATV)		2012	50	46	6	0	0	0	0	0	0	0
9.07	Skiff (including motor)		2002	50	36	15	0	0	0	0	0	0	0
9.08	Skiff (including motor)		1998	50	32	5	0	0	0	0	0	0	0
9.09	SEAPA Boat from Tyee	Excellent	2012	50	46	14	0	0	0	0	0	0	0
10.00	**Infrastructure**												
10.01	Housing	Fair	1984	34	2	536	0	536	0	0	0	0	0
10.02	Storage and Other	Good	1984	50	18	191	0	0	0	0	0	0	0
10.03	Docks/walkaway	Good	2002	20	6	51	0	0	0	0	0	51	0
10.04	Incinerator	Good	1984	50	18	15	0	0	0	0	0	0	0
10.05	Potable Water System	Good	2005	12	1	37	37	0	0	0	0	0	0
10.06	Sewerage System	Good	1984	35	3	95	0	0	95	0	0	0	0
11.00	**Civil Structures**												
11.01	Dam/Spillway repairs	Good	1984	40	8	254	0	0	0	0	0	0	0
	Debris removal, trash clearing	Good	2006	40	30	89	0	0	0	0	0	0	0
11.02	Intake gate structure	Very Good	1984	40	8	95	0	0	0	0	0	0	0
11.03	Power tunnel	Excellent	1984	40	8	382	0	0	0	0	0	0	0
11.04	Penstock	Good	1984	70	38	382	0	0	0	0	0	0	0
11.05	Dock and ramp	Good	1984	40	8	382	0	0	0	0	0	0	0
11.06	Powerhouse	Good	1984	40	8	509	0	0	0	0	0	0	0
11.07	Powerhouse roof		2016	40	40	104	0	0	0	0	0	0	0
11.08	Tailrace	Very Good	1984	40	8	127	0	0	0	0	0	0	0
11.09	Roads	Good	1984	33	1	150	150	0	0	0	0	0	0
	TOTAL						773	536	2,346	-	-	90	239

TABLE B-2
Expected Service Life, Repair and Replacement Costs

Transmission Facilities
Swan Lake

		Condition 2012	Installation Year	Expected Service Life (Years)	Remaining Service Life	Notes	Replacement Cost 2012 (k$)	2017	2018	2019	2020	2021	2022	2023	2024
11.00	**SwitchYard at Powerhouse**														
11.01	Transformers w/containment	Good	1984	40	8		$ 1,560	-	-	-	-	-	-	-	1,560
11.02	Circuit Breakers	Excellent	2006	30	20	c	131	-	-	-	-	-	-	-	-
11.03	Disconnect Switches	Good	1984	33	1		65	65	-	-	-	-	-	-	-
11.04	PTs, CTs, Wave Traps	Good	1984	40	8	e	-	-	-	-	-	-	-	-	-
11.05	Structures & Foundations	Good	1984	50	18		125	-	-	-	-	-	-	-	-
11.06	Fencing	Fair	1984	36	4	b	5	-	-	-	5	-	-	-	-
11.07	Generation Protection	Good	2003	18	5		55	-	-	-	-	55	-	-	-
11.08	Generation Control	Good	2009	15	8		65	-	-	-	-	-	-	-	65
11.09	Line Protection	Good	2009	15	8		45	-	-	-	-	-	-	-	45
11.10	Station Protection	Good	2001	17	2		65	-	65	-	-	-	-	-	-
11.11	All Others	Good	1984	35	3		100	-	-	100	-	-	-	-	-
	Subtotal						$ 2,216								
12.00	**Transmission Line**														
12.01	Insulators, porcelain	Good	1995	60	39		$ 400	-	-	-	-	-	-	-	-
12.02	Hardware	Good	1984	60	28		700	-	-	-	-	-	-	-	-
12.03	Conductors	Good	1984	60	28		5,700	-	-	-	-	-	-	-	-
12.04	Structures, wood	Good	1984	40	8		5,900	-	-	-	-	-	-	-	5,900
12.045	Feasibility study, pole replacement							75							
12.05	Foundations	Good	1984	80	48		11,500	-	-	-	-	-	-	-	-
12.06	Cans for x-country wood poles	Good	1984	40	8		1,500	-	-	-	-	-	-	-	1,500
12.07	Insulators, x-country composites	Fair	1996	40	20	c	970	-	-	-	-	-	-	-	-
12.08	Structures, steel	Good	1984	80	48		700	-	-	-	-	-	-	-	-
	Subtotal						$ 27,370								
13.00	**Bailey Substation**														
13.01	Transformers w/containment	Good	1985	40	9		$ 1,674	-	-	-	-	-	-	-	-
13.02	Circuit Breakers	Good	2000	30	14		122	-	-	-	-	-	-	-	-
13.03	Disconnect Switches	Good	1985	35	4		41	-	-	-	41	-	-	-	-
13.04	PTs	Good	1985	40	9	e		-	-	-	-	-	-	-	-
13.05	Structures & Foundations	Good	1985	50	19		125	-	-	-	-	-	-	-	-
13.06	Fencing (Not SEAPA's)							-	-	-	-	-	-	-	-
13.07	Generation Control (Gone)							-	-	-	-	-	-	-	-
13.08	Line Protection		2001	17	2		45	-	45	-	-	-	-	-	-
13.11	All Others	Good	1985	35	4		150	-	-	-	150	-	-	-	-
	Subtotal						$ 2,157								
	TOTAL						$ 11,467	140	110	100	196	55	-	-	9,070

TABLE B-3
Expected Service Life and Repair/Replacement Costs

Hydroelectric Facilities
Tyee Lake

	Kepler Condition 2012	Install Year	Kepler Service Life 2012	Remaining Service Life Years	Kepler Replace Cost 2012 k$	2017	2018	2019	2020	2021	2022	2023	2024
1.00 Turbine and Other Mechanical Items													
1.01 Runner	Excellent	2010	40	34	820	0	0	0	0	0	0	0	0
Runner crack & weld repairs	Removed	2010		-6	597								
1.02 Needle/nozzle	Good	1984	50	18	896	0	0	0	0	0	0	0	0
Needle/nozzle overhaul	Good	2006	20	10	716	0	0	0	0	0	0	0	0
1.03 Remaining Turbine Parts													
Guide Bearing	Good	1984	50	18	54	0	0	0	0	0	0	0	0
Stuffing Box	Good	1984	35	3	54	0	0	54	0	0	0	0	0
Deflectors	Good	1984	50	18	60	0	0	0	0	0	0	0	0
Linkage	Good	1984	40	8	36	0	0	0	0	0	0	0	36
1.04 Governor	Excellent	2006	30	20	400	0	0	0	0	0	0	0	0
1.05 Spherical Inlet valve	Fair	1984	40	8	251	0	0	0	0	0	0	0	251
1.06 Intake gates	Fair	1984	40	8	150	0	0	0	0	0	0	0	150
1.07 Cooling Water System	Good	1984	40	8	60	0	0	0	0	0	0	0	60
1.08 Other Aux Mechanical Equipment	Good	1984	40	8	60	0	0	0	0	0	0	0	60
2.00 Generator													
2.01 Stator 1	Excellent	2010	30	24	998	0	0	0	0	0	0	0	0
2.011 Stator 2	Excellent	2010	30	24	998	0	0	0	0	0	0	0	0
2.02 Rotor 1	Excellent	2010	30	24	597	0	0	0	0	0	0	0	0
2.021 Rotor 2	Excellent	2010	30	24	597	0	0	0	0	0	0	0	0
2.03 Bearings	Excellent	1984	40	8	368	0	0	0	0	0	0	0	368
2.04 Cooling System	Fair	1984	35	3	179	0	0	179	0	0	0	0	0
2.05 Sensing Devices (RTD's, etc.)	Excellent	1984	40	8	44	0	0	0	0	0	0	0	44
2.06 Fire Protection	Good	2000	30	14	63	0	0	0	0	0	0	0	0
3.00 Excitation System	Excellent	2010	20	14	597	0	0	0	0	0	0	0	0
4.00 Electrical System													
4.01 Battery and chargers	Excellent	2007	25	16	143	0	0	0	0	0	0	0	0
4.02 Controls & Protective relaying	Good	2010	25	19	299	0	0	0	0	0	0	0	0
4.03 Station Service	Good	1984	50	18	358	0	0	0	0	0	0	0	0
4.04 15kV Switchgear	Good	1984	40	8	90	0	0	0	0	0	0	0	90
4.05 Cable System	Good	1984	60	28	370	0	0	0	0	0	0	0	0
5.00 SCADA System	Good	2013	20	17	537	0	0	0	0	0	0	0	0
6.00 Communications (Burnett Pk. Equip)	Good	2014	25	23	597	0	0	0	0	0	0	0	0
7.00 Emergency Generator	Good	1986	37	7	183	0	0	0	0	0	0	183	0
8.00 Intake Gate Electrical Controls	Good	2013	30	27	30	0	0	0	0	0	0	0	0
9.00 Rolling Stock													
9.01 Road Grader	Good	1988	35	7	354	0	0	0	0	0	0	354	0
9.02 Dump Truck	Good	1992	30	6	172	0	0	0	0	0	172	0	0
9.03 Front end loader	Good	1992	30	6	129	0	0	0	0	0	129	0	0
9.04 Cat D4 Bulldozer (Sold)						0	0	0	0	0	0	0	0
9.05 Backhoe (Moved)						0	0	0	0	0	0	0	0
9.06 Boom Truck (Sold)						0	0	0	0	0	0	0	0
9.07 Pickup Truck	Fair	1991	30	5	42	0	0	0	0	42	0	0	0
9.08 Pickup Truck (Sold)						0	0	0	0	0	0	0	0
9.09 Pickup Truck (Sold)						0	0	0	0	0	0	0	0
9.10 Passenger Van	New	2005	30	19	42	0	0	0	0	0	0	0	0
9.11 Electric Vehicle	Good	2008	10	2	8	0	8	0	0	0	0	0	0
9.11 Petersburg Brusher Truck	Good	2006	12	2	20	0	20	0	0	0	0	0	0
9.12 Pick up truck 3/4 ton to replace 1/2 ton	New	2006	30	20	42	0	0	0	0	0	0	0	0
9.13 2012 Ford Escape	New	2012	30	26	25	0	0	0	0	0	0	0	0
9.14 Second Northend pickup	Good	2000	18	2	25	0	25	0	0	0	0	0	0
9.15 Boat	New	2010	30	24	250	0	0	0	0	0	0	0	0
9.16 Skiff-12 ft. Lund w/trailer (10hp)	New	2008	30	22	4	0	0	0	0	0	0	0	0
9.17 Skiff at Tyee	Good	2000	30	14	7.5	0	0	0	0	0	0	0	0
9.18 Brusher 6 wheel all terrain	New	2011	30	25	38	0	0	0	0	0	0	0	0
10.00 Infrastructure													
10.01 Operator Housing	Fair/Good	1984	45	13	281	0	0	0	0	0	0	0	0
10.02 Crew quarters replacement	Good	1996	40	20	105	0	0	0	0	0	0	0	0
10.02 Crew quarters roof replacement		2016	20	20	190	0	0	0	0	0	0	0	0
10.03 Storage and Other	Good	1984	50	18	281	0	0	0	0	0	0	0	0
10.04 Docks	Good	2014	20	18	155	0	0	0	0	0	0	0	0
10.05 Runway	Good	1997	30	11	70	0	0	0	0	0	0	0	0
10.06 Potable Water System	Good	2007	20	11	82	0	0	0	0	0	0	0	0
10.07 Sewerage System	Good	2000	20	4	82	0	0	0	82	0	0	0	0
10.08 Incinerator	Good	1992	31	7	17	0	0	0	0	0	0	17	0
11.00 Civil Structures													
11.01 Access Roads	Excellent	1984	50	18	281	0	0	0	0	0	0	0	0
11.02 Intake gatehouse structure	Good	1984	50	18	141	0	0	0	0	0	0	0	0
11.03 Dropshaft/ tunnel	Good	1984	50	18	704	0	0	0	0	0	0	0	0
11.04 Penstock	Good	1984	50	18	211	0	0	0	0	0	0	0	0
11.05 Powerhouse	Good	1984	50	18	281	0	0	0	0	0	0	0	0
11.06 Tailrace	Good	1984	50	18	211	0	0	0	0	0	0	0	0
TOTAL						-	53	233	82	42	301	554	1,059

TABLE B-4
Expected Service Life, Repair and Replacement Costs

Transmission Facilities
Tyee Lake

		Condition 2012	Installation Year	Expected Service Life (Years)	Remaining Service Life	Notes	Replacement Cost 2012 (k$)	2017	2018	2019	2020	2021	2022	2023	2024
11.00	**SwitchYard at Powerhouse**														
11.01	Transformers	Good	1984	40	8		$ 2,074	-	-	-	-	-	-	-	2,074
11.02	Circuit Breaker	Good	2009	30	23		126	-	-	-	-	-	-	-	-
11.03	Disconnect Switches	Good	1984	35	3		63	-	-	63	-	-	-	-	-
11.04	PTs, CTs, Wave Traps	Good	1984	40	8	e	-	-	-	-	-	-	-	-	-
11.05	Circuit Switchers	Good	2006	50	40		210	-	-	-	-	-	-	-	-
11.06	Structures & Foundations	Good	1984	50	18	b	200	-	-	-	-	-	-	-	-
11.07	Fencing	Fair	1984	36	4		15	-	-	-	15	-	-	-	-
11.08	Generation Control		2015	25	24		280	-	-	-	-	-	-	-	-
11.09	Governor		2006	18	8		250	-	-	-	-	-	-	-	250
11.10	SCADA Master		2006	15	5		250	-	-	-	-	250	-	-	-
11.11	Generation Protection		2005	18	7		470	-	-	-	-	-	-	470	-
11.12	Line Protection		2001	18	3		45	-	-	45	-	-	-	-	-
11.13	Station Protection		2001	18	3		35	-	-	35	-	-	-	-	-
11.14	All Others	Good	1984	35	3		150	-	-	150	-	-	-	-	-
	Subtotal						$ 4,168								
12.00	**Transmission Line**														
12.01	Insulators, original	Good	1984	50	18		2,100	-	-	-	-	-	-	-	-
12.02	Hardware, original	Good	1984	50	18		3,300	-	-	-	-	-	-	-	-
12.03	Conductors	Good	1984	50	18		13,500	-	-	-	-	-	-	-	-
12.04	Structures, original steel	Good	1984	80	48		12,000	-	-	-	-	-	-	-	-
12.05	Structures, wood poles	Good	1984	40	8		2,000	-	-	-	-	-	-	-	2,000
12.055	Engineering to replace	Good						75	-	-	-	-	-	-	-
12.06	Foundations, original	Good	1984	80	48		20,000	-	-	-	-	-	-	-	-
12.07	Insulators, V-towers	Good	1998	50	32	*c*	1,100	-	-	-	-	-	-	-	-
12.08	Hardware/guys, V-towers	Good	1998	50	32	*c*	2,400	-	-	-	-	-	-	-	-
12.09	Structures, V-towers	Good	1984	80	48	*c*	6,000	-	-	-	-	-	-	-	-
12.10	Foundations, V-towers	Good	1984	80	48	*c*	10,500	-	-	-	-	-	-	-	-
12.11	Submarine Cable	Good	2005	50	39	*c*	1,000	-	-	-	-	-	-	-	-
	Subtotal						$ 73,900								
12.12	Submarine Cable - replace	Excellent	1984	50	18	*f*	35,352	-	-	-	-	-	-	-	-
							$ 109,252								
13.00	**Wrangell Switchyard**														
13.01	Transformers	Good	1984	40	8		$ 658	-	-	-	-	-	-	-	658
13.02	Circuit Breakers	Good	1984	36	4		42	-	-	-	42	-	-	-	-
13.03	Disconnect Switches	Good	1984	35	3		63	-	-	63	-	-	-	-	-
13.04	PTs, CTs, Wave Traps	Good	1984	40	8	e		-	-	-	-	-	-	-	-
13.05	Circuit Switchers	Good	2005	50	39		210	100	-	-	-	-	-	-	-
13.06	Structures & Foundations	Good	1984	50	18		250	-	-	-	-	-	-	-	-
13.07	Fencing	Fair	1984	34	2	b	30	-	30	-	-	-	-	-	-
13.08	Line Protection		2001	19	4		35	-	-	-	35	-	-	-	-
13.09	Station Protection		2016	25	25		45	-	-	-	-	-	-	-	-
13.10	Station Control		2016	25	25		85	-	-	-	-	-	-	-	-
13.11	Control Building	Good	1984	35	3		80	-	-	80	-	-	-	-	-
13.13	All Others	Good	1984	35	3		300	-	-	300	-	-	-	-	-
	Subtotal						$ 1,798								
14.00	**Wrangell Substation**														
14.01	Transformers	Good	1984	34	2		$ 595	-	595	-	-	-	-	-	-
14.02	Metalclad	Good	1984	34	2		254	-	254	-	-	-	-	-	-
14.03	Circuit Switchers	Good	2004	50	38		109	-	-	-	-	-	-	-	-
14.04	Structures & Foundations	Good	1984	50	18		80	-	-	-	-	-	-	-	-
14.05	Fencing	Fair	1984	36	4	b	10	-	-	-	10	-	-	-	-
14.06	Line Protection		2008	25	17		185	-	-	-	-	-	-	-	-
14.07	Line Control		1984	15	-17		65	65	-	-	-	-	-	-	-
14.08	Station Protection		1984	25	-7		25	25	-	-	-	-	-	-	-
14.09	All Others	Good	1984	35	3		150	-	-	150	-	-	-	-	-
	Subtotal						$ 1,473								
15.00	**Petersburg Substation**														
15.01	Transformers	Good	1984	40	8		$ 826	-	-	-	-	-	-	-	826
15.02	Circuit Breakers	Good	1990	30	4	c	70	-	-	-	70	-	-	-	-
15.03	Disconnect Switches	Good	1984	35	3		32	-	-	32	-	-	-	-	-
15.04	PTs, CTs, Wave Traps	Good	1984	40	8	e		-	-	-	-	-	-	-	-
15.05	Circuit Switchers	Good	2004	50	38		106	-	-	-	-	-	-	-	-
15.06	Structures & Foundations	Good	1984	50	18		180	-	-	-	-	-	-	-	-
15.07	Fencing	Fair	1984	36	4	b	10	-	-	-	10	-	-	-	-
15.08	Line Protection	Good	2003	15	2		85	-	85	-	-	-	-	-	-
15.09	Line Control		1984	25	-7		85	85	-	-	-	-	-	-	-
15.10	Station Protection	Good	1984	25	-7		35	35	-	-	-	-	-	-	-
15.11	Control Building	Good	1984	34	2		80	-	80	-	-	-	-	-	-
15.12	All Others	Good	1984	35	3		300	-	-	300	-	-	-	-	-
	Subtotal						$ 1,809								
	TOTAL						$ 9,692	385	1,044	1,218	182	250	-	470	5,808

SOUTHEAST ALASKA POWER AGENCY

SUBMARINE CABLE R&R

SUGGESTED MOTION
I move to approve R&R project, RR20349 Sub Cable Vank-Woronkofski, with an overall budget of $13,370,352, as presented at the September 30, 2020 board meeting.

Feasibility projects are established to investigate and analyze a project prior to initiating a new capital (R&R) project. At some point, the Board decides whether to abandon or move forward with a project. Feasibility expenditures are moved to expense when a project is abandoned. When the decision is to move forward with the project, those expenditures are rolled over into an R&R project and are capitalized upon completion.

Feasibility project 1830-008 Vank-Woronkofski Sub Cable was established in October 2019 after the September failure of a single submarine cable at this crossing. Staff has spent the last year analyzing the failure event and evaluating the best course forward, regularly updating the Board during regular and special meetings.

Approval of this motion will transition feasibility project 1830-008 to an R&R project. All expenditures in the feasibility project ($151,591 as of August 31) will roll over to the R&R project. A copy of the RR20349 project document is attached.

RR20349
Sub Cable Vank-Woronkofski

Description:	Replacement of failed submarine cable at Woronkofski crossing.	
Cost Estimate: **$13,370,352**	Sched. Complete: **AUG-2021**	Project Mgmt: **Siedman**

PROJECT DISCUSSION

A fault occurred on the Stikine Cable crossing between the islands of Woronkofski and Vank on Sunday September 29, 2019. The Board approved a Feasibility Project at the October 30, 2019 Special Meeting to continue investigation, testing, and analysis of the event. The cause of the fault was identified as the complete failure of a single cable (one of four) at this crossing. Delivery of electricity was restored using the spare cable; however, SEAPA deliveries would cease if a second cable at this crossing failed. At the September 4, 2020 Special Meeting, the Board authorized staff to contract with Sumitomo for replacement of the failed cable.

PROJECT COST ESTIMATE

BREAKDOWN	ESTIMATE	BUDGET – EXPENDITURES	
Cable Replacement			
Sumitomo – Lump sum	$9,217,920	Expenditures thru Aug 2020	$151,591
Sumitomo – Time & Materials	2,482,400	Scheduled Expenditures Sep-Dec 2020	2,220,326
Project Contingency	1,170,032	FY20 Budget	$2,371,917
SEAPA project-related Expense	500,000	FY21 Budget	10,998,435
Total Estimate	$13,370,352	Total Budget	$13,370,352

Project Cost Estimate Discussion

The original feasibility project (1830-008) was approved with a budget of $200K in October 2019. The Board authorized a lump-sum contract with Sumitomo in September 2020 and an overall budget of $13.37M. This authorization also specifies the order in which existing funds would be appropriated to pay for the project and allows SEAPA to bond for the project at a future date.

SOUTHEAST ALASKA POWER AGENCY

Date: September 21, 2020

To: Trey Acteson, Chief Executive Officer

From: Clay Hammer, Operations Manager

Subject: SEAPA 2021-2023 Annual Transmission Line Maintenance Contract

A Request for Proposals for the 2021-2023 Annual Transmission Line Maintenance Project was advertised on August 12, 2020. The following two (2) bids were received on September 14, 2020:

Bidder	City/State	Bid Amount
Electric Power Constructors, Inc.	Anchorage, Alaska	$1,738,991.22
Northern Powerline Constructors, Inc.	Anchorage, Alaska	$2,643,626.55

An independent review was conducted and each proposal was evaluated based on experience with Alaska generally and Southeast Alaska in particular in carrying out similar projects, contractor's warranty period, appropriateness of the proposed general approach to the work, capacity to respond to the required work in a timely and efficient manner, competitive pricing, completeness and quality of bid documents, and service level response time.

Based on the review, staff recommends award of the 2021-2023 Annual Transmission Line Maintenance Contract to Electric Power Constructors, Inc. (EPC). The two bidders were qualified, submitted responsive bids, and met the criteria required for the project, however, EPC was the low bidder. Funding for the contract will be requested in the respective FY2021-FY2023 operating budgets.

Please consider the following suggested motion:

SUGGESTED MOTION

I move to authorize staff to enter into a Contract with Electric Power Constructors, Inc. for SEAPA's 2021-2023 Annual Transmission Line Maintenance Contract for the lump-sum bid of $1,738,991, plus a 10% contingency for supplemental or emergency work of $173,899 for the total not-to-exceed value of $1,912,890.

SOUTHEAST ALASKA POWER AGENCY

Date: September 23, 2020

To: SEAPA Board of Directors

From: Trey Acteson, CEO

Subject: SEAPA Hydro Communications/SCADA Networking Engineer

SEAPA's 2020-2022 Strategic Plan ('Plan') adopted by the Agency at its June 30, 2020 Board meeting identified the need to recruit and hire a full time IT/SCADA employee in the fourth quarter of this year. Staff solicited a market data valuation from its consultant, InTandem Consultants, for the position. A copy of the valuation is attached identifying comparable positions and recommends a compensation range of $98,357 to $133,071. A copy of the job description is also attached.

Staff seeks authorization to recruit and hire for the position within the recommended compensation range. A budget adjustment for the current fiscal year is not required as it is anticipated the successful candidate will begin work in 2021.

Please consider the following suggested motion:

SUGGESTED MOTION
I move to authorize the Agency's CEO to recruit and hire a full-time Hydro Communications/SCADA Networking Engineer to provide support for all SEAPA facilities within the salary range of $98,357 to $133,071 annually based on the successful candidate's skills and experience.

Attachments:
InTandem Valuation
Job Description

Attachment to Agenda Item 7C

Re: Hydro Communications/SCADA Networking Engineer

InTandem Valuation

INTANDEM LLC
ADVISORS TO MANAGEMENT

September 18, 2020

Mr. Trey Acteson
Southeast Alaska Power Agency
Ketchikan, AK
Via email

Dear Trey:

Thank you for sending the Hydro Communications SCADA Networking Engineer job description for valuation.

External market data is available within the following salary surveys for comparable types of positions.

Survey Title	Description
Economic Research Institute Salary Assessor (ERI) Dataset July 2020	ERI's **Salary Assessor**® is an extremely comprehensive source of compensation information. It reports competitive for over 5,800 jobs and provides analyses of competitive pay defined by 500 geographical areas in North America and Europe, 1,200 industries, and infinite organization sizes. Revenue size segmentation is available and the database is updated quarterly throughout the year. Reports generated represent all industries and adjusted to emulate the Alaska state geographical area.
2018 Milliman Northwest Utilities Survey (NWU)	The NWU survey represents 81 utilities located throughout the Pacific Northwest. Data from the survey is collected annually for 125 benchmark positions. Dataset effective June 2018. Base pay is presented.

Although not a perfect match to the reviewed position, the following survey comparator positions contain the closest skills within each database for the key functions of the SEAPA position and provide a market reference as to how these skills are rewarded within the Alaska (all industry) and NWU labor markets.

400 N Chief Garry Dr, Liberty Lake, WA 99019
Direct: 509.720.8826 Web: www.IntandemConsultants.com

Comparator Positions

Survey	Title	Descriptor
NWU	Power Control Systems Engineer	Designs, develops, implements, and supports computerized Energy Management Systems, including SCADA and other distributed control systems, such as those that communicate with hydraulic, electrical, and mechanical systems and devices. Supports ongoing 24/7 electrical system reliability, and responds to trouble calls, as needed. May be responsible for maintaining compliance evidence and implementing systems that comply with applicable regulatory standards, such as NERC/WECC.
NWU	Instrument & Control Technician	Installs, monitors, troubleshoots and programs SCADA and other communication systems, devices and related equipment. Requires knowledge of a wide variety of equipment and devices such as RTUs, relays, programmable logic controllers, and meters. Troubleshoots a variety of instruments and controls related to power generation, power transmission and distribution, or power plant operations. May perform basic programming of the SCADA system to maintain or enhance functionality. Typically requires specialized electronics training or completion of an apprenticeship and a minimum of 2 years experience.
ERI	Network Engineer	Plans, designs, and evaluates new and existing computer network systems and services, including local area networks, wide area networks, intranets, and the Internet, providing analytical, technical, and administrative support. Plans, oversees, develops, and implements network policies and procedures and ensures network integrity as maintenance and modification projects to existing applications are undertaken.
ERI	Control Systems Engineer	Designs and develops control systems and equipment. Prepares specifications and designs calculations, reviews and checks designs, prepares and reviews material quantity estimates, and prepares forecasts and change. Understands the science of instrumentation and the automatic control of dynamic processes, and possesses the ability to apply this knowledge to the planning, design, development, operation, and evaluation of control systems to ensure the safety and practical operability of such processes.

ERI Control Systems Engineer

Years of Experience	25th Percentile	Mean	75th Percentile
18	$ 113,228	$ 124,255	$ 135,391
17	$ 111,557	$ 122,415	$ 133,359
16	$ 109,868	$ 120,560	$ 131,311
15	$ 108,147	$ 118,674	$ 129,228
14	$ 106,378	$ 116,741	$ 127,095
13	$ 104,544	$ 114,740	$ 124,892
12	$ 102,626	$ 112,653	$ 122,600
11	$ 100,602	$ 110,456	$ 120,195
10	$ 98,450	$ 108,125	$ 117,650
9	$ 96,142	$ 105,630	$ 114,934
8	$ 93,650	$ 102,943	$ 112,017
7	$ 90,975	$ 100,064	$ 108,902
6	$ 88,126	$ 97,003	$ 105,599
5	$ 85,112	$ 93,773	$ 102,121
4	$ 81,951	$ 90,389	$ 98,486
3	$ 78,668	$ 86,869	$ 94,715
2	$ 75,296	$ 83,237	$ 90,829
1	$ 71,870	$ 79,524	$ 86,855

ERI: Network Engineer

Years of Experience	25th Percentile	Mean	75th Percentile
18	$ 112,858	$ 124,605	$ 136,455
17	$ 111,119	$ 122,678	$ 134,357
16	$ 109,342	$ 120,705	$ 132,202
15	$ 107,510	$ 118,671	$ 129,972
14	$ 105,609	$ 116,557	$ 127,652
13	$ 103,621	$ 114,348	$ 125,220
12	$ 101,529	$ 112,024	$ 122,657
11	$ 99,312	$ 109,563	$ 119,939
10	$ 96,947	$ 106,943	$ 117,041
9	$ 94,414	$ 104,142	$ 113,942
8	$ 91,718	$ 101,165	$ 110,650
7	$ 88,871	$ 98,025	$ 107,185
6	$ 85,885	$ 94,738	$ 103,564
5	$ 82,777	$ 91,322	$ 99,809

Years of Experience	25th Percentile	Mean	75th Percentile
4	$ 79,565	$ 87,797	$ 95,939
3	$ 76,268	$ 84,183	$ 91,980
2	$ 72,908	$ 80,504	$ 87,954
1	$ 69,509	$ 76,783	$ 83,890

NWU: Power Control Systems Engineer Salary Report

25th percentile	Average	75th percentile	Reports
$102,584	$115,714	$125,833	16

The Instrument & Control Technician position was not available in the 2018 survey; however, this role is extremely similar and valued quite similarly in the utility sector.

Summary

With respect to the ERI and NWU references, the NWU Power Control Systems Engineer report is the best fit for the SEAPA position. The all participant average ($115,714) is a good reference for this position as it captures both the utility industry and northwest location. (The utility sector is often more competitive than the all-industry references available through the ERI, especially for technical roles.) A salary range can be established by utilizing a 15% differential from the target, allowing compensation to be matched to incumbent performance and/or experience.

Recommended Compensation Range

Target – 15%	Target	Target + 15%
$ 98,357	$ 115,714	$ 133,071

ERI data is available by years of experience and provides an expected level of incumbent experience that can be recruited for a particular value. The recommended range should support attracting and retaining a Control Systems Engineer or a Network Engineer having between seven and thirteen years of experience. Scarcity of requisite skills in your immediate recruiting area is an additional consideration in the placement of the Hydro Communications SCADA Networking Engineer position.

I trust that my comments are helpful and appreciate the opportunity to be of assistance.

Warmest Regards,

Winston L. Tan
Managing Principal

Attachment to Agenda Item 7C

Re: Hydro Communications/SCADA Networking Engineer

Job Description

SOUTHEAST ALASKA POWER AGENCY (SEAPA)

JOB TITLE	**Hydro Communications/ SCADA Networking Engineer**		REPORTS TO	**Chief Executive Officer**
LOCATION	**All SEAPA Facilities**		FSLA Status	**Exempt**

LOCATION

The base location for this position will be Ketchikan, Alaska. Job duties will require travel to other SEAPA facilities.

POSITION SUMMARY

The Hydro Engineer troubleshoots, repairs, calibrates, maintains, tests and installs communications and control system hardware, software, and equipment in hydroelectric power generating stations and facilities. Systems include: microwave, telemetry, two-way radio, fiber optic, multiplex carrier, VoIP & POTS telephone, SCADA, RTU's, serial comms (RS-232 / RS-485), frame relay, protective relay (transfer trip & power line carrier), PLC's routable networks, physical security (alarms & video surveillance), basic electronics, AD/DC, instrumentation, DC Power, and PV systems. The position performs hydro communications/SCADA networking duties associated with hydroelectric power generation and transmission facilities. Position is salary with a standard work schedule of 5 days/week 8hrs/day.

ESSENTIAL DUTIES & RESPONSIBILITIES

- Networking (firewalls, routers, switches, VLAN, encryption, TCP/IP, UDP, VPN, OSI model)
- SCADA (management, graphical development, data historian, OS patches, security)
- Power Plant Control System Security (network security, risk modeling/remediation, NERC CIP compliance / monitoring, ports/services)
- PLC interface (input/output, scaling, PLC programming)
- Telemetry (modbus, DNP, Serial, RTU, I/O)
- Telecom (VoIP, POTS, DDS, T1, etc.)
- Microwave (hardware, software, troubleshooting, etc.)
- Two-Way Radio (900MHz, 150MHz, etc.)
- Fiber Optics (OTDR, Maintenance, etc.)
- Auxiliary Equipment (batteries, solar, back-up generators, AC/DC, peripheral computer components)
- Project Management (develop wiring diagrams, layout drawings and engineering specifications for system modifications)
- Assists with maintenance and repair of mechanical and electrical equipment and systems
- Maintains a positive and supportive working relationship with co-workers
- Performs other related duties as assigned

QUALIFICATIONS

Education/Licenses:

- High School diploma with additional education and/or certifications (GROL, NARTE, CISSP, CISCO, etc.) highly desirable

- Completion of a recognized apprenticeship program or equivalent course in electronics and data communications
- At least five (5) years of responsible experience maintaining, installing and repairing electronic control systems and data communications equipment
- Knowledge of: NERC CIP standards, Radio frequencies, electronics and instrumentation theory, DC/AC theory, Networking and Security principles, Schweitzer Multifunction relays, GC PLC equipment, Cisco Switches
- Willingness to be available for work during off hours in case of emergency
- Valid Alaska driver's license (may be secured following recruitment if candidate is relocating from another state)

Experience/Desired Skills/Abilities:

- Hydroelectric power plant experience
- Ability to operate, control and monitor hydroelectric generating units and auxiliary equipment
- Must be a team player, self-motivated, and exhibit professional skills that reflect well on the Agency, which also includes dedication to the mission of the organization, observation of all health and safety regulations, and use of safety equipment as needed
- Strong troubleshooting and analytical skills
- Thorough understanding of electrical generation and transmission equipment and of basic engineering and physical parameters relating to the facility operation
- Must be motivated and have the ability to quickly learn plant operations and system control concepts
- Experience with instrumentation and controls is preferred
- Proficiency in core computer skills (e.g. MS Word, Excel, etc.)
- Experience with networking devices
- Ability to work with little or no supervision

Physical Requirements:

- Ability to speak English clearly and hear well when communicating over the telephone, radios, and in person
- Physically able to walk, climb stairs, climb ladders in excess of 100 feet, stand, and lift materials up to 60 lbs.
- Ability to safely traverse uneven, wet, slippery, challenging terrain
- Work in different types of personal protective equipment (PPE)
- Work indoors in an industrial power plant environment
- Occasional work outdoors and exposure to all seasonal weather conditions
- Occasionally work around and over water
- Occasionally required to work in elevated positions
- Travel in fixed wing aircraft, helicopters, and boats
- Risk of exposure to energized equipment, noise, rotating machinery, falling from heights and other hazards associated with remote field work or an industrial setting
- Exposure to indigenous wildlife, including insects and animals

This job description does not constitute a written or implied contract for employment. SEAPA reserves the right to revise or change duties and responsibilities as the need arises. Requirements are representative of minimum levels of knowledge, skill and abilities and in no way all inclusive.

SOUTHEAST ALASKA POWER AGENCY

Date: September 22, 2020

To: SEAPA Board of Directors

From: Bob Lynn, SEAPA Chair

Subject: CEO Annual Review

Attached is a CEO Evaluation Form for review and discussion under New Business during the Board meeting. The Board has agreed with our CEO to provide a yearly evaluation, and this schedule should help us complete this task in a timely fashion. Modifications may be suggested during the meeting. If no modifications are suggested the form will be accepted as-is and a formal motion is unnecessary. If modifications are suggested, SEAPA staff will modify the form accordingly following the Board meeting. I have also developed the following timeline to establish continuity in a process for future evaluations which we may also review and discuss during the meeting:

3rd Quarter Board Meeting	Insert prior year's CEO evaluation form in Board packet for review, discussion, and modifications in regular session. If no changes the form is adopted by consensus. If modifications are requested, SEAPA staff shall modify the form accordingly following the Board meeting.
Two weeks after 3rd Quarter Board Meeting	SEAPA staff distributes Evaluation Form to Directors via email for completion. Staff to include the following instructions in email distributing the form: • Indicate the Evaluation Form provided is form agreed upon during 3rd Quarter Board meeting • Completed forms shall be returned to SEAPA Counsel and Board Chair via Email • Provide email addresses for Counsel and Chair • Provide deadline date for return of the form (deadline for return should be two weeks following date of distribution of the form) to SEAPA Counsel and Chair stating "Privileged and Confidential Communications" in the subject line of the email.
One month after 3rd Quarter Board Meeting	SEAPA Counsel to perform checklist to determine whether all directors have submitted evaluations and communicate with Board Chair to follow up with any that may not have been submitted by deadline
November 15	Deadline for SEAPA Counsel and Board Chair to compile evaluations in preparation for December Board Meeting
One week prior to 4th Quarter Board Meeting	SEAPA Counsel to distribute compiled evaluations to Board via email under "Privileged and Confidential" communications in preparation for CEO evaluation in Executive Session
4th Quarter Board Meeting	Evaluate CEO in Executive Session

Any consensus on modifications to the timeline will also be made by SEAPA staff following the Board meeting.

SEAPA CEO EVALUATION FORM

DATE:
Trey Acteson, CEO

Performance Measures

Evaluation Criteria	Meets	Exceeds	Needs Improvement	Comments or Suggestions
1. Leadership				
The CEO has shown clear vision in correctly anticipating trends and priorities effecting the Agency's prosperity and operation.				
The CEO has a clear understanding of Member Communities' utility needs and concerns, Agency needs and priorities, correctly anticipates industry trends, and uses that information to help develop short and long-term organization direction.				
The CEO keeps the Board informed of emerging issues of significant importance that affect the mission of the Agency as well as the Member Utilities				
The CEO has been an initiator, setting high working standards and pursuing goals with a high level of personal drive and energy.				
The CEO annually prepares a program of work for the Board's approval and keeps the Board apprised of progress, accomplishments, and proposed changes quarterly.				
2. Relationship with Board				
The CEO has provided leadership continually involving the Board in developing a shared vision, strategies, goals, and direction for the organization.				
The CEO has demonstrated a sound knowledge of Board governance and procedures.				

The CEO works with Board Members and Member Utilities to gain a broad understanding of their concerns, capital investment strategies, and financial characteristics. The CEO is sensitive to Member Communities' local issues and concerns and assists wherever possible to address their needs.				
The CEO has been readily available to individual Board Members whenever necessary, as well as supports the Board in its governance duties by providing necessary resources and information.				
3. External Relationships				
Gains respect and support of the communities on the conduct of the Southeast Alaska Power Agency.				
Prepares and sends periodic communications to the Member Communities.				
Keeps well informed on State and Federal Regulations and how they affect SEAPA.				
Works effectively with public and private agencies.				
4. Staff Development				
The CEO has created and maintained an organizational culture and climate which attracts, retains, and motivates staff to carry out SEAPA's mission.				
The CEO has empowered staff members appropriate levels of freedom and authority, as well as effectively solicited and fostered support for initiative and creativity within the organization.				
The CEO has developed and executed sound personnel procedures and practices.				

SOUTHEAST ALASKA POWER AGENCY
CEO REPORT

DATE: June 23, 2020

TO: SEAPA Board of Directors

FROM: Trey Acteson, Chief Executive Officer

SUBJECT: CEO Report

CORONAVIRUS (COVID-19) UPDATE:

SEAPA's hydroelectric projects continue to be closed to the public, except for the dock facilities. This is to reduce potential random COVID-19 exposure to critical infrastructure operators. Contractors are required to submit a detailed screening questionnaire and gain SEAPA Management approval prior to visitation. Contractors traveling from out of state are also required to provide negative test results within three days prior to flying.

COVID-19 has been included under old business on the agenda for Member Utilities to share their experiences and consider any potential need for SEAPA to adjust how we are conducting business in those communities.

COVID-19 supply chain issues have been relatively minimal.

SAFETY:

We unfortunately had an employee slip on an exterior deck at one of SEAPA's facilities which has subsequently developed into a recordable lost-time incident. Corrective measures were taken immediately to address the hazard and avoid recurrence. As the Board knows, I view employee safety as our #1 priority. The Agency continuously works to educate our employees and implement permanent solutions to mitigate hazards prior to any incidents. The employee has since transitioned back to work on light duty and will return at full capacity when cleared by their doctor. Due to HIPPA regulations, I am unable to elaborate further.

GOVERNMENTAL AFFAIRS & EXTERNAL INDUSTRY ACTIVITIES:

I have attached an Advocacy Strategy behind this memo outlining the structure and current focus areas for the Agency (Attachment 1). I look forward to discussing this topic in greater detail during our upcoming Board meeting and have included updates within the strategy document.

HYDROSITE INVESTIGATION (HSI) UPDATE:

I have met with McMillen Jacobs and they have assured me the Hydrosite Investigation (HSI) Project "Draft" Report will be ready to roll-out to the SEAPA Board by the end of October. Since this is a strategic initiative, I anticipate we will discuss the preliminary results in executive session to ensure it meets the full expectation of the Board prior to public dissemination. For instance, the Board may request further information be collected or wish to expand scope to consider alternative hydrosite configurations.

INSURANCE RENEWAL:

I have been informing the Board for the past few years that insurance premiums were at the bottom of the premium cycle. SEAPA held our annual Renewal Strategy Meeting with Marsh Wortham (SEAPA's commercial insurance broker) and G2 Risk Consulting (SEAPA's insurance consultant) on September 8th and were advised that due to broad losses across the nation, market conditions have deteriorated significantly for all lines. The following table was provided and illustrates the magnitude of projected increases for each line of coverage. I have also included the Renewal Strategy Meeting slides (Attachment 2) to provide greater detail on SEAPA's commercial insurance program. SEAPA spends approximately $475,000 annually on insurance premiums. Staff has completed and submitted all required forms for the upcoming November 1st renewals.

Coverage	Projected Rate Increase
Automobile	+15% to +25%
Workers' Compensation	+5% to +7%
Aviation GL	+20% to +35%
Aviation Non-Owned	+7% to +10%
Excess Liability	+15% to +50%
Property	+30%
D&O	+15% to +20%
Side A D&O	+15% to +20%
Crime/Fidelity	+5%

BEST PRACTICES AND PROCESS IMPROVEMENTS:

Staff has been working with our Human Resources (HR) legal consultant to draft new Administrative Policies. We are actively working on the rewrite as time allows. The Board will be provided individual sections for consideration/approval as content is developed.

PERSONNEL:

All regular budgeted full-time and seasonal positions are filled at this time. Consistent with SEAPA's Board approved Strategic Plan, I have added an item under new business for the recruitment and hiring of a Hydro Communications SCADA Engineer to fill an identified need on the team.

Attachment #1
to
CEO Report

Advocacy Strategy

SOUTHEAST ALASKA POWER AGENCY
Legislative & Regulatory Advocacy Strategy

DATE: September 23, 2020

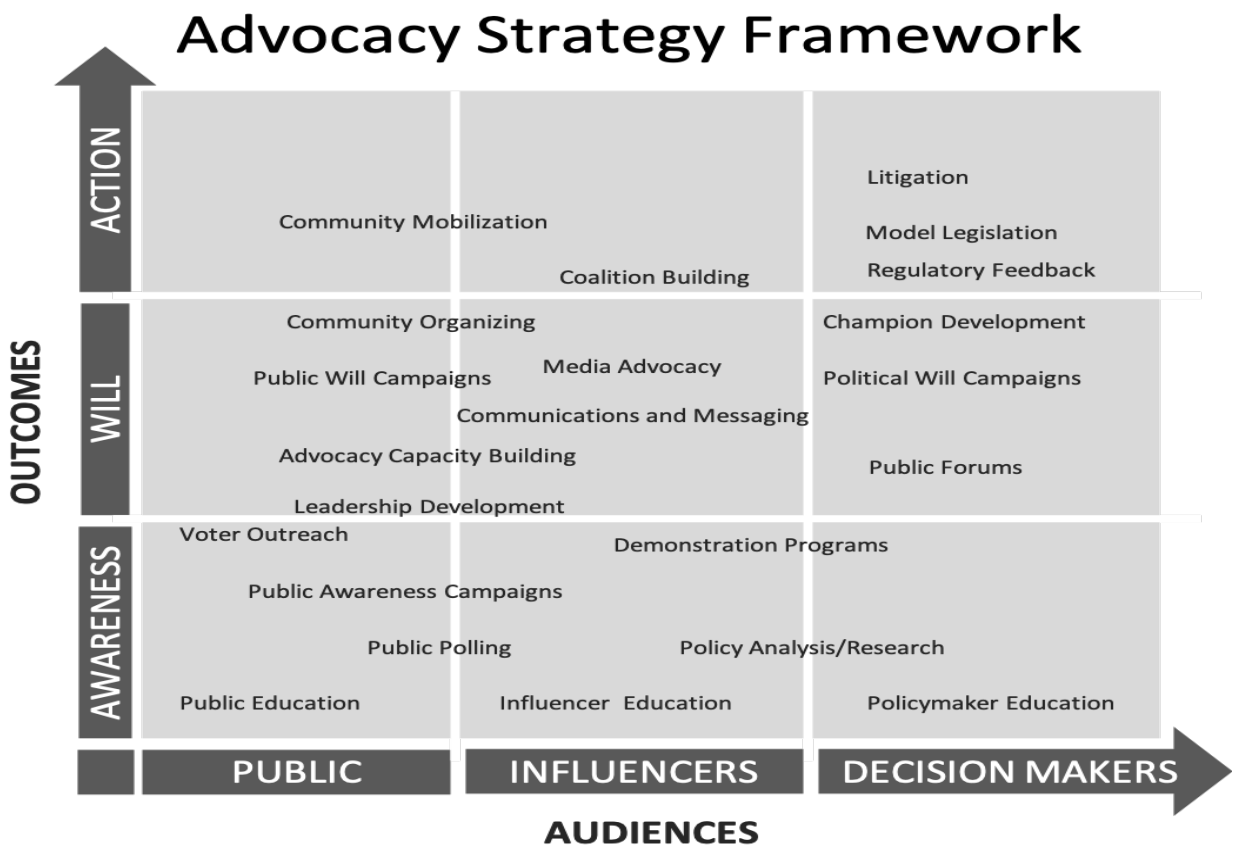
TO: SEAPA Board of Directors

FROM: Trey Acteson, Chief Executive Officer

SUBJECT: Legislative & Regulatory Advocacy Strategy

Background: The SEAPA Board established an objective to formalize the Agency's advocacy outreach strategy as a deliverable in SEAPA's 2020 Strategic Plan. Realtime updates are provided by the CEO at every regular Board meeting, so the goal here is to memorialize the high-level foundational elements and then formulate an advocacy strategy for desired focus areas.

The following figure illustrates a typical advocacy strategy framework.



(Figure 1 - Image from Center for Evaluation Innovation)

There are six underlying questions to consider when developing an advocacy strategy which facilitate a better understanding of the theory of change necessary for a successful effort. The process is audience-focused, facilitates thinking about the commonly collaborative nature of advocacy efforts, and how efforts complement or misalign. These questions also help to track progress and identify needed changes as theories play out in practice. (Paraphrased from: *The Advocacy Strategy Framework – A tool for articulating an advocacy theory of change*)

1. ***How is the strategy positioned?*** Which audiences need to be targeted and what is the desired outcome with each?
2. ***Who specifically is the strategy trying to influence and how?*** Identify the specific person(s) within the audience groups and seek to move somebody toward a specific "action".
3. ***What are the underlying assumptions about how change happens?*** Understand how politics and the policy process works on an issue, and the specific levers that advocates need push to catalyze change.
4. ***Who else is working on this and how?*** Identifying collaborators' positioning puts the strategy in context, shows where and how it will add value, and flags potential points of conflict.
5. ***How will the strategy look over time?*** How might possible shifts in the context – political, economic, or social – effect how the strategy is positioned and how might the strategy need to adjust over time.
6. ***What interim outcomes are relevant to know if the strategy in on track?*** Sometimes policy goals take years to achieve; interim outcomes signal important progress to be achieved along the way.

Elements of Advocacy: The Agency has historically employed a balanced approach to advocacy, using multiple channels to build broad support and spur specific actions by specific people on issues of importance. Each issue is unique and requires an adaptive strategic approach for multi-year initiatives.

- **Key Contacts:** Relationship building is the foundation of advocacy. Establishing and maintaining "Key Contacts" in current and potential positions requires an ongoing effort with a wide network of individuals, agencies, and non-governmental organizations (NGO's). Developing strong relations with key contacts enables the Agency to effectively act on legislative and regulatory issues as they emerge.
- **Monitoring and Analyzing Issues:** Staying abreast of legislative and regulatory issues that have potential to impact the Agency is an essential element of successful advocacy. A broad range of sources must be monitored daily, often requiring a deeper dive into tangential issues to fully understand potential threats. These issues can also morph into something entirely different over time and must be continuously monitored. A common threat is escalation in regulatory burden. It is much easier to influence outcomes when issues are identified early, and preemptive action can be taken.
- **Identification of Opportunities:** The Agency from time to time identifies "new" issues and/or initiatives that require advocacy. Typically, these are project funding opportunities that must be managed within the framework of multiple legislative cycles. Establishing

programmatic funding and favorable eligibility criteria creates a pathway for subsequent grant applications.

- **Establishing Priorities:** It is common for the Agency to pursue multiple priorities simultaneously, but they are often on different timelines and with different entities. It is important to keep our priorities well defined and limit our "Asks" to keep influencers and decision makers focused on achieving the highest outcomes. Most issues are multi-year and the level of effort required to reach conclusion should be given due consideration during prioritization.
- **Approach:** Each issue is unique and requires a tailored approach. It is a dynamic process often requiring recalibration over multiple years to meet desired outcomes. An effective approach includes strategic timing of engagement with key contacts. Although the advocacy channels must adapt with changes in key contact, it is imperative that messaging is clear, concise, and consistent throughout the process.
- **Seeking Achievable Outcomes:** Advocacy has many forms, but the Agency mostly focuses on specific issues with well-defined desired outcomes. Political capital is limited and must be strategically allocated for maximum benefit. At times, the Agency pursues broader initiatives such as hydro licensing reform, but always has specific elements prioritized. Occasionally long-shot initiatives are undertaken with the goal of strategically positioning them in advance to take advantage of any windows of opportunity. SEAPA typically has a blend of issues we are actively advocating for.

Advocacy Strategy Focus Areas for 2020/2021:

1. Explore funding opportunities for Submarine Cable Replacement Project
    a. Brainstorm options with Washington D.C. consultant to identify potential Federal programmatic funding conduits.
    b. Draft white paper to illustrate purpose and need to influencers and decision makers.
    c. Outreach to Deven Mitchell, Debt Manager State of Alaska, to ascertain timeline for next Alaska Municipal Bond Bank offering.
    d. Outreach to Curtis Thayer, Executive Director of Alaska Energy Authority, to explore potential State funding opportunities.
    e. Outreach to Alan Weitzner, Executive Director of Alaska Industrial Development & Export Authority (AIDEA), to explore Bonding opportunities.
    f. Engage State Lobbyist.
    g. Outreach with Senator Stedman and Representative Ortiz to identify critical infrastructure funding opportunities.
    h. Work through APA to amend the DOE's Water Power Technologies Office (WPTO) budget to include "transmission infrastructure" and "economically distressed communities", ensuring SEAPA's eligibility for potential funding.
    i. Issue letters to Alaska's Federal Delegation requesting support for funding programs that SEAPA would be eligible to apply for grants through.
    j. Meet with Alaska's Federal Delegation and/or key staff to keep purpose and need on their radar.

2. Federal Energy Regulatory Commission Safety of Water Power Projects and Project Work – Notice of Proposed Rule Making
    a. Review sectional analysis.
    b. Outreach with Industry Groups (NHA, APA, NWHA).
    c. Review and support State, Regional, and National comment filings.
    d. Monitor FERC Docket No. RM20-9-00 to be filed in the National Registry.
3. Tongass National Forest – Proposed 2001 Roadless Rule Exemption
    a. Monitor progress and report back to Board.
    b. Following passage through OMB, to be published in National Registry.
    c. Monitor District Court case that has been in abeyance for the past two years.
4. Work closely with Alaska Power Association (APA), National Hydropower Association (NHA), Northwest Hydroelectric Association (NWHA), and Southeast Conference (SEC) monitoring and advocating on legislative and regulatory issues
    a. Continue role as Director with APA.
    b. Continue leadership role as Chairman of APA's Managers' Forum.
    c. Continue work on APA's Government Affairs Committee.
    d. Continue work on APA's Hydropower Committee.
    e. Continue work on NHA's Regulatory Committee.
    f. Continue leadership role as Past President and member of Executive Committee for NWHA.
    g. Review draft comment letters on issues of interest to ensure these entities issue comments that are aligned with SEAPA's objectives. Advocate for changes as needed.
5. Support early stage development of a U.S. Department of Energy (DOE) Alaska Specific Energy Plan as a potential future conduit for project grant funding
    a. Work in coordination with APA and their D.C. consultant to craft a potential structure.
    b. Support communication efforts with Alejandro Moreno, Director for WPTO with the U.S. Department of Energy.
    c. Advocate for additional programmatic funding for DOE through Alaska's Federal Delegation and other key contacts.
6. Bolster outreach with key contacts
    a. Utilize alternative means to connect with key contacts. Due to the impact of the global pandemic, it is necessary to adopt and refine electronic engagement.
    b. Attend virtual conferences when possible.
    c. Engage legislative incumbents leading up to election.
    d. Build rapport with potential and/or new key legislators.
    e. Maintain engagement with key contacts throughout the year.

Attachment #2
to
CEO Report

2020 SEAPA Renewal Strategy

MARSH

RENEWAL STRATEGY MEETING 1 SEPTEMBER 2020

Southeast Alaska Power Agency

COMMERICAL INSURANCE PROGRAM

RENEWAL STRATEGY MEETING

AGENDA

SEAPA Business and Risk Management Priorities

Renewals

- Existing Program
- Casualty
- Aviation
- Property
- FINPRO

Renewal Milestones

SEAPA BUSINESS AND RISK MANAGEMENT PRIORITIES

▶ Southeast Alaska Power Agency Strategies & Challenges; Operations Changes

→ Discuss your strategic priorities & objectives for the next 12 to 18 months.

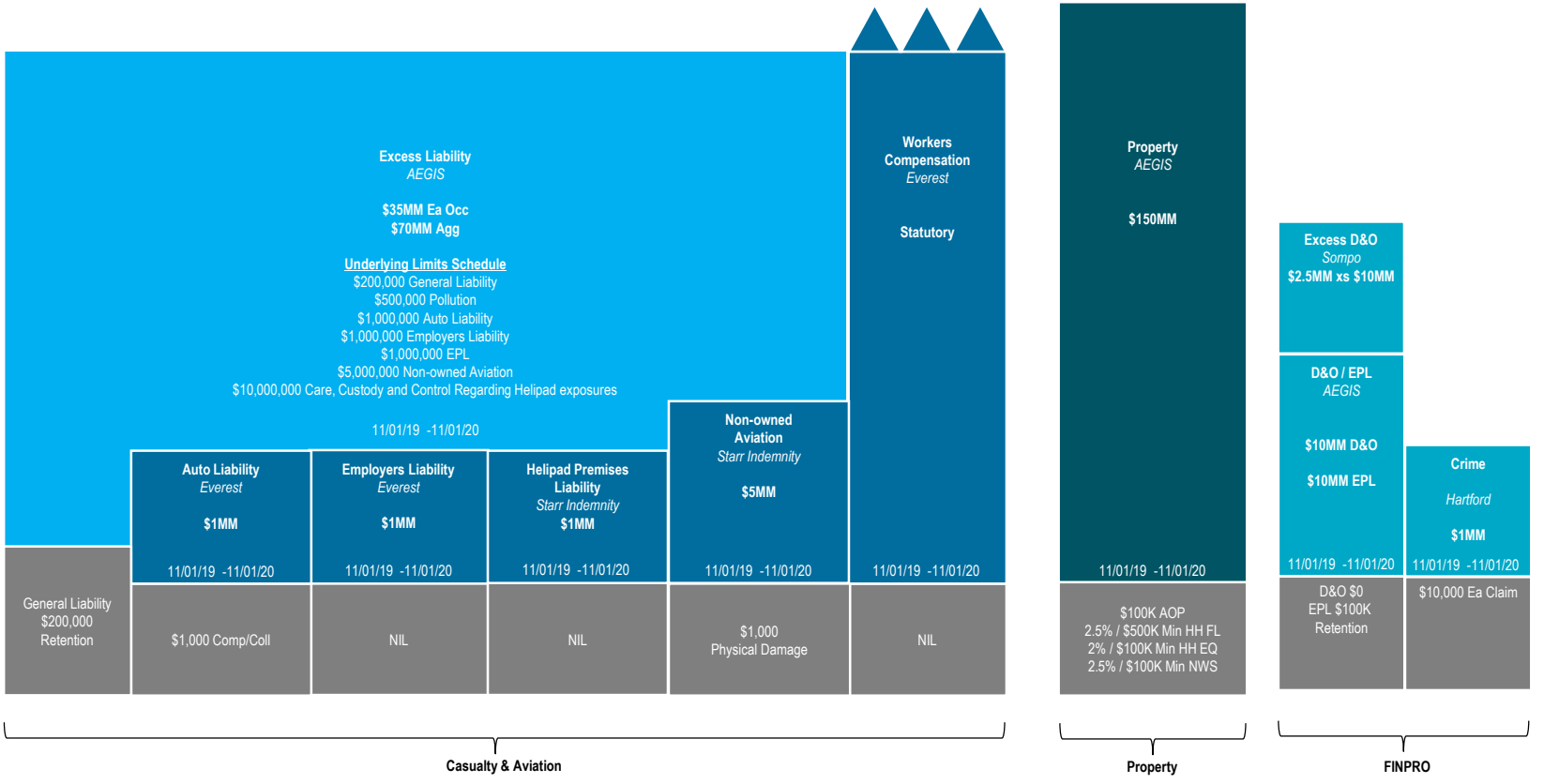
→ What new challenges or pressures does SEAPA face?

→ Discuss any recent or upcoming changes as they relate to:

- Acquisitions, divestitures or expansions including New Projects
- Changes in Management

EXPIRING PROGRAM STRUCTURE

EFFECTIVE DATES NOVEMBER 1, 2019 TO NOVEMBER 1, 2020 (UNLESS OTHERWISE NOTED)



(Graphic not to scale)

2019 PREMIUM SUMMARY

Coverage	Policy Number	Limits	Premium
Property AEGIS	P05728003P	$150,000,000	$131,186.00
Workers' Compensation Everest Premier Ins. Co.	EN4WC00026191	Workers' Compensation Insurance Statutory Requirements - State AK Employers Liability Insurance $1,000,000 Bodily Injury by Accident - Each Accident $1,000,000 Bodily Injury by Disease - Policy Limit $1,000,000 Bodily Injury by Disease - Each Employee Other States Insurance All states except ND, OH, PR, VI, WA, WY $1,000,000 Stop Gap Liability/Employers Liability States Covered: OH, ND, WA, WY	$34,911.00
Excess Liability AEGIS	XL5328607P	$35,000,000 Limit of Liability Each Occurrence $70,000,00 General Aggregate	$174,976.00
Automobile Everest Premier Ins. Co.	EN4CA00274191	$1,000,000 Limit $5,000 Medical Payments $1,000,000 Uninsured/Underinsured Motorist	$7,674.00
Aviation GL Starr Aviation	1000239005-01	$1,000,000 Each Aircraft Limit $1,000,000 Each Loss Limit	$10,175.00
Aviation Non-Owned Starr Indemnity & Liability Co.	1000224545-04	1,000,000 Each Occurrence	$15,000.00
D&O AEGIS	DP5022219P	$10,000,000 limit with $100,000 retention	$71,891.00
Side A D&O SOMPO International	ADX10004121606	$2,500,000 excess of $10,000,000	$15,000.00
Crime/Fidelity The Hartford	83FA0229489-19	$1,000,000	$2,975.00
TOTAL			**$463,788.00**

CASUALTY & AVIATION STRATEGY AND GOALS

GOALS

- Projected Rate Increases
  - +3% to +5% for General Liability
  - +15% to +25% Auto Liability
  - +5% to +7% Workers Compensation
  - +15% to +50% Umbrella Liability
  - +7% to +10% Non-owned Aircraft Liability
  - +20% to +35% Helipad Premises Liability
- Given current market conditions, maintain any potential year over year increases under 50%
- Maintain coverage enhancements on current policy
- Expand coverages where possible without premium impact

EXECUTION STRATEGY

- Drive competition through aggressive marketing process
- Review primary casualty options at a higher deductible to secure potential premium savings

CONSIDERATIONS & INFORMATION REQUIREMENTS

CONSIDERATIONS

- Underwriters reviewing five-year, 10-year, 20-year, and lifetime loss ratios.
- Competitive pricing on the program may deter interest from new carriers
- Market availability for SEAPA's industry sector
- Continuing deterioration of market conditions. $2M primary GL and Auto attachments continue to be pushed.

INFORMATION REQUIRED

- Updated Payroll
- Updated Revenue
- Updated Auto List
- Updated Driver List
- Updated Applications

CASUALTY MARKET CONDITIONS

“Hot Button” Issues for Underwriters

- Drones/unmanned aerial vehicles, including ways the company them in its operations.
- Fleet safety initiatives, including training and monitoring of compliance by both employed or contracted drivers.
- Detailed descriptions of wildfire-exposed assets and management of overhead power lines and vegetation.
- Pipeline inspections, specifically following losses related to an in-line inspection tool and smart pig false positive readings.
- Information on dams, including specifications and hazard classifications, description of downstream exposures, most recent engineering reports, and remediation plans for any dams given a “poor” rating.
- Contract administration processes and procedures to select contractors with a strong safety culture and a good prior safety performance, to determine suitable insurance limits required, and to obtain proof of insurance.
- Cyber practices, including the existence and details of a standalone cyber liability insurance program, cyber responsibilities and the reporting line, and technical details.
- COVID-19 exposures, with questions delving into exposures, effects of the pandemic on services and operations, measures taken to protect employees and contractors, and existing and new policies

CASUALTY MARKET CONDITIONS

The casualty marketplace has continued to see significant losses through the end of 2019. AM Best reports that the 2019 combined ratio for the US property and casualty market was 98.8%, compared to 99.3% in 2018. This slight improvement, however, is unlikely to signal an end to market conditions that we have seen over the past year.

- Despite catastrophic loss activity, the primary casualty marketplace can still be considered competitive and capacity remains available when marketed. We are however experiencing areas of tightening for risks with poor historical losses where rate increases can easily reach double digits.
- We continue to see increased underwriting scrutiny surrounding:
  - Wildfires in California as well as other states where operations are conducted near urban wilderness interfaces and where climactic conditions suggest increased potential for loss activity. Examples include Alaska, Colorado, Nevada, New Mexico, Oklahoma, Oregon, South Dakota, Texas, and Washington.
  - Ownership and/or operation of transmission lines outside of the generation facility premises.
  - Vegetation management procedures.
  - Fleet safety programs.
  - Drone usage, whether owned or contracted.
  - Vendor certification process.
  - Coal, with many carriers no longer writing coal plants.
  - Cyber risk.
  - COVID-19.
  - Dams and related dam-safety protocols.

- Auto liability continues to be problematic with seven straight years of over 100% combined ratios for the industry. Insureds with large fleets or low retentions and high limits are seeing increases in their auto rate regardless of loss activity.
- In addition, with the changing environment of the umbrella/excess marketplace, we have seen an increase in client requests for primary auto and general liability (GL) limits to be raised to help support the increased attachment points desired by excess markets.
- Underwriting consensus is that prior existing rates cannot support recent loss activity in auto, general liability, and product liability.

CASUALTY MARKET CONDITIONS

- Insurers are contracting and limiting capacity on larger accounts:
  - Lead limits are going from the traditional $25 million to $15 million or in some cases even $10 million at the expiring premiums.
  - Large capacity markets are cutting back maximum capacity offered on individual risks.
  - Insurers operating globally are increasingly managing capacity across all access points. For example, limits placed with an insurer's US access point can reduce the limits that will be afforded via x-US access points.

- Casualty lines have evidenced average rate increases between 5% and 40% or more since January 2020:
  - Auto for large fleets, regardless of prior loss activity, is typically running 15% to 20% higher.
  - General liability rates have remained relatively flat to increases in the 3% to 5% range, depending on loss experience.
  - Workers' compensation has remained relatively flat to increases in the 3% to 7% range, depending on loss experience.
  - Lead umbrella market options are declining as fewer markets are entertaining energy industry insureds. Most markets who offer lead umbrella will only do so if they are also providing primary casualty insurance lines. Renewal increases in the 15% and 50% range are not uncommon.
  - Excess liability capacity has declined while demand is on the rise. Renewal premium increases from the commercial marketplace have been consistent with the lead umbrella. (*Please refer to separate discussion with regards the mutual insurer marketplace – notably AEGIS and EIM – in the following pages.)*

CASUALTY MARKET CONDITIONS – UMBRELLA AND EXCESS

- The property/casualty marketplace for power and utility insureds has continued to see significant catastrophic losses through the end of 2019. Although these cat losses are predominantly first party claims, the casualty lines have seen significant losses from risks such as wildfire, auto liability, electric contact cases, and gas explosions.
  - → The Massachusetts Low Pressure System Over Pressurization exceeded $1 billion in loss in September 2018.
  - → "Nuclear verdicts" (liability claims greater than $10 million) have become more prevalent, particularly with regard to auto claims, increasing the "frequency of severity".
- Commercial excess markets are exiting, cutting capacity, and/or requiring minimum price per million regardless of attachments.
- A significant decrease in supply of market capacity for power and utility risk has occurred through the end of 2019, continuing in 2020. The "unfriend coal" movement has exacerbated this situation for those with a related operational exposure. The replacement of incumbent carriers is often a price shock if the next carrier at the "margin" has a minimum premium that is significantly above expiring pricing.
  - → The overall excess casualty premium increase is normally "manageable" because the AEGIS and EIM premium accounts for the majority of total spend.
  - → While this is impacting all insureds in the power and utility segment, those with difficult risk profiles or poor loss experience are the most significantly impacted.

CASUALTY MARKET CONDITIONS – UMBRELLA AND EXCESS

Market Segment	Rate Changes 2020	Rate Changes 2019	Rate Changes 2018
AEGIS – Electric and/or Gas	Overall goal of +10% across its book Normal 10% increase to 15% increase Loss Distressed 15% increase to 70% increase	Overall goal of 4% across its book Normal 3% increase to 7% increase Loss Distressed 10% increase to 70% increase	Overall goal of 4% across its book Normal 2% increase to 7% increase Loss Distressed 10% increase to 70% increase
EIM	General rate increase projected 5% to 10%, applied on an account specific basis. Rates are driven by loss activity, especially for insureds with loss ratios of 150% or more. Premiums will be dependent on changes in exposure or loss activity (if any).	Continued Flat Rates. Premium dependent on changes in exposure or loss activity (if any)	Flat rates. Premium dependent on changes in exposure or loss activity (if any)
Stockholder Owned Insurers	+20% to +50% or more. Higher increases are being pushed for insureds whose operations include electric distribution and/or transmission, dams, and gas operations. Capacity is limited and requiring minimum $ per M regardless of attachment	10% to 30%. Higher increases are being pushed for clients whose operations include electric distribution and/or transmission, dams, and gas operations.	Flat to 5% Increase

CASUALTY MARKET PLACE SUMMARY

Lead Market/non-AEGIS Alternatives

The number of markets available to write only lead umbrella is shrinking, with most writing lead umbrella only if they also write primary insurance lines. Maximum capacity appears to remain at $25 million, but insurers frequently offer less limits on an account-specific basis. Insureds whose operations are conducted in known wildfire zones or those with significant dam exposure, for example, expect to face increased underwriting scrutiny and substantially higher renewal premiums with respect to those exposed operations. Coverage exclusions are also possible with respect to cyber risk, communicable diseases, and wildfire exposures.

Standalone Lead Umbrella Markets

- Chubb (US) - Capacity/participation may be impacted by participation in the "Unfriend Coal" movement
- Berkshire Hathaway – Able to write lead umbrellas, Berkshire has a somewhat limited appetite for power and utility placements.

Markets that will consider lead umbrella participation with typical limits of $10 million to $15 million if primary casualty is also placed with the same carrier:

- For utility operations, the most active markets include Starr, Everest, Zurich, and Liberty Mutual (occurrence coverage only – typically offering excess capacity now, rather than lead umbrella).
- For powergen operations, additional options may be available from Travelers, CHUBB, AXA XL, and ARCH.

Excess Capacity (can offer FF AEGIS Coverage, unless noted otherwise):

- Everest Re — *$25 million maximum excess capacity ($15 million for gas exposures).*
- Starr — *$25 million typical capacity. Additional limits available on a case-by-case basis. Wildfire exposures are being carefully scrutinized.*
- Chubb (US) — *$25 million excess capacity. Wildfire exclusions apply to California and other known exposure areas. [Will utilize Chubb Bermuda follow form AEGIS policy wording ("AE03)]*
- Lexington — *$5 million to $10 million excess capacity, in first $100 million of program limits. Lex US has been adjusting their access model, preferring wholesale broker engagement, or access via Marsh Houston Energy team to Lex Houston Energy team. Alternatively, access Lex via Bowring Marsh UK.*
- SCOR Re — *$25 million excess capacity ($10 million to $15 million for AEGIS/EIM insureds)*
- Alllianz — *$25 million excess capacity. Can also be accessed in the UK.*
- Wholesale Markets capacity varies based on price and exposures.

Maximum capacity amounts shown above are subject to change in this challenging excess liability landscape.

CASUALTY MARKET PLACE SUMMARY

Bermuda

- While total market capacity remains substantial, it has continued to decline for US energy accounts: While at one time it reached $800 million, the maximum market capacity is now less than $400 million for most power and utility industry insureds. Insurers have reduced limits afforded to power and utility insureds if they are not able to obtain a desired rate increase. This results in reduced program limits offered on renewal, or markets refusing to negotiate renewal premiums below their desired rate in order to continue to provide expiring capacity. Please note decisions by AIG, CHUBB, and XL to reduce maximum capacity to between $25 million and $50 million for most insureds.
- Total available capacity will depend upon loss history and market perception of premium adequacy.
- Ongoing rate increases and capacity reductions are anticipated. Rates can and do vary significantly among carriers and among specific insureds' placements, but there is little doubt that markets desire increases – ranging from 20% to 50% or more – on their energy book of business.
    - Premium reductions appear to be available in specific instances where attachment points increase, or exposures decline, as compared to expiring.
    - Insureds for whom the markets perceive increased exposures and/or those that exhibit adverse loss history may encounter market pressure for increases in excess of the amounts discussed herein. Insureds whose operations include those that are in known wildfire zones, for example, are subject to substantially higher renewal premiums with respect to those exposed operations. Insureds with dam exposures are facing increased scrutiny, as well.
    - Coverage limitations/exclusions are emerging with respect to cyber risk and communicable disease as well.

London/Europe

London and Zurich market underwriters are increasingly selective in deciding whether to offer capacity to individual US power and utility insureds, and requiring more specific operational and risk mitigation information from those companies with perceived high-risk operational exposures. Examples include:

- Starstone has discontinued writing excess liability
- Apollo will no longer entertain utility industry programs.
- Swiss Re has withdrawn from the US utility arena.
- Liberty UK may renew existing policies, but is not responding to new business approaches.
- Munich Re and Allianz capacity remains stable, depending on their view of the adequacy of the pricing.
- CONVEX recently entered the market with initial capacity of $10M, expected to increase to $25M however at the moment they are not pursuing utility business.

Capacity offered by the insurance markets is closely tied to the rate being offered. In a similar manner, London and European insurers are pursuing increased premiums for US power and utility industry programs.

Carriers require more detailed information related to wildfire exposure in all jurisdictions. Wildfire coverage for California-domiciled operations is getting particular scrutiny. Premiums for this coverage are significantly higher than in the past, if available at all. Additional underwriting details are being required with respect to COVID-19 mitigation activities, and cyber risk mitigation.

NON-OWNED AVIATION MARKET CONDITIONS

▶ Market Unprofitability:

→ Rating at an 'all time' low following significant 'year on year' pricing reductions on most General Aviation business.

→ Majority of clients paying premiums that are a fraction of their pricing 5 years ago, so premiums will need to continue increasing.

→ Regardless of 'market spread' or 'selective' philosophy, most if not all General Aviation underwriters are not achieving a sustainable margin on a combined underwriting basis (including costs etc).

→ Shorter period loss ratios ('loss burn') more commonly used (3 year instead of 5 year) with a view to a quicker return to sustained profitability.

▶ Instability:

→ There have been a number of departures (both personnel and underwriting companies) in recent years.

→ More are expected if claims continue in a similar vein.

→ Increased management focus and 'sign off' levels required.

→ Most, if not all, underwriters believe that 'core rating' is below sustainable levels by a significant margin.

▶ Reduced Capacity:

→ In the last eighteen months, competitive capacity has reduced, with some underwriting management either withdrawing from classes of business, selling, merging or consolidating to remain profitable.

→ There is currently no new capacity.

→ During negotiations, underwriters have been quick to reduce their line size when they perceive pricing as being too low.

→ Many are now empowered by management to walk away from long-term relationships where the pricing does not fit their model.

▶ Lead & Support Market Hardening:

→ Leaders are committed to increasing their rates and income.

→ They are however displaying differentiation of operators.

→ Underwriters are increasingly focusing on the quality of the risk rather than just looking at income.

→ At the same time, supporting markets are seeking to obtain lead terms or higher.

→ Markets seem less likely to agree reasonable increased levels of pricing if they are supporting a risk rather than leading.

→ Number of markets prepared to lead a risk has reduced substantially. Underwriting from the 'back of placement' is now more prevalent.

PROPERTY STRATEGY AND GOALS

GOALS

- Expected rate increase +30%, and continuing to rise.
- Maintain coverage enhancements on current policy, if possible.
- Review Adequacy of Natural Catastrophe Limits based on modeling results

EXECUTION STRATEGY

- Drive competition through aggressive marketing process, including hosting a virtual underwriting visit.
- Russell Rush to work with Vilma Vanegas, property carriers, and SEAPA to identify opportunities for loss control engineering improvement
- Retention/Deductible Options. Insurers restricting coverage and increasing retentions/deductibles.

CONSIDERATIONS & INFORMATION REQUIREMENTS

CONSIDERATIONS
- LTAs no longer being offered.
- Status of AEGIS Engineering Surveys/Recommendations
- Continued increase in market exits, restricting deployable capacity

INFORMATION REQUIRED
- Updated Statement of Values

PROPERTY MARKET CONDITIONS

2020 Results

YTD	Rate Increase
Q1 2020	+20% to +25%
April / May 2020	Starting +25%
June / July 2020	Starting +29%

- → Clients were increasing retentions to keep prices down
- → Renewal placements are not being completed
- → Markets are refusing to add risks to portfolios that they feel are unprofitable or have potential to add loss to stressed portfolios
- → Many results driven by client size / premium spend

The Market "*US P&C downgrades outpacing upgrades for first time in five years*: AM Best"

- → Authority continues to be pulled to higher levels, increasing turnaround time and slowing responses
- → Uniform industry underwriting a new normal - insurers limiting credentialing of account specific results or risk management philosophy
- → Increasing requirements regarding exposure / loss prevention data, driven by more stringent risk selection process / home office approval process

Changes / Focus on

- → Natural Catastrophe ("Nat Cat") Exposures, and so called "Soft Cat" Exposures – shaded X flood, tornado, severe thunderstorm
- → Time Element Extensions (e.g. CTE)
- → Overall risk quality and loss record
- → Renewed focus on Cyber exposure including imposing more restrictive policy wording
- → Historical rate movement
- → Deductible increases and coverage reductions are generating minimal cost savings.
- → Continued underwriter challenges caused by increased submission activity and limited staffing levels

PROPERTY MARKET CONDITIONS

Capacity Withdrawal

- → Argo (California)
- → Aspen moving all remaining energy to London
- → Aviva (UK)
- → Axis
- → Barbican
- → Ironshore
- → LIU (U.S. P&U)
- → Pioneer
- → Priority
- → Qatar Re
- → RSA (California)
- → Tokio Marine HCC
- → Navigators
- → Neon
- → Starstone

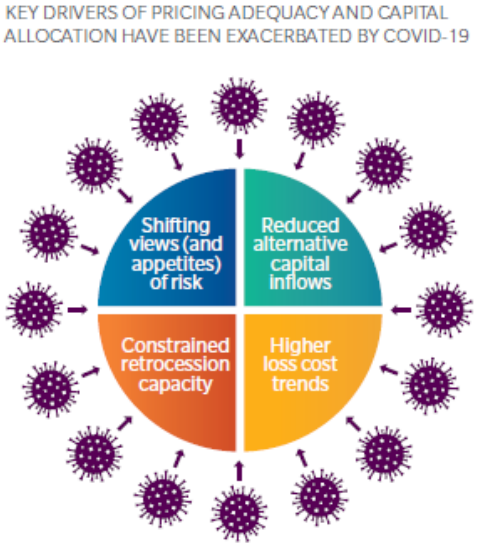
PROPERTY MARKET CONDITIONS

COVID 19 Impact

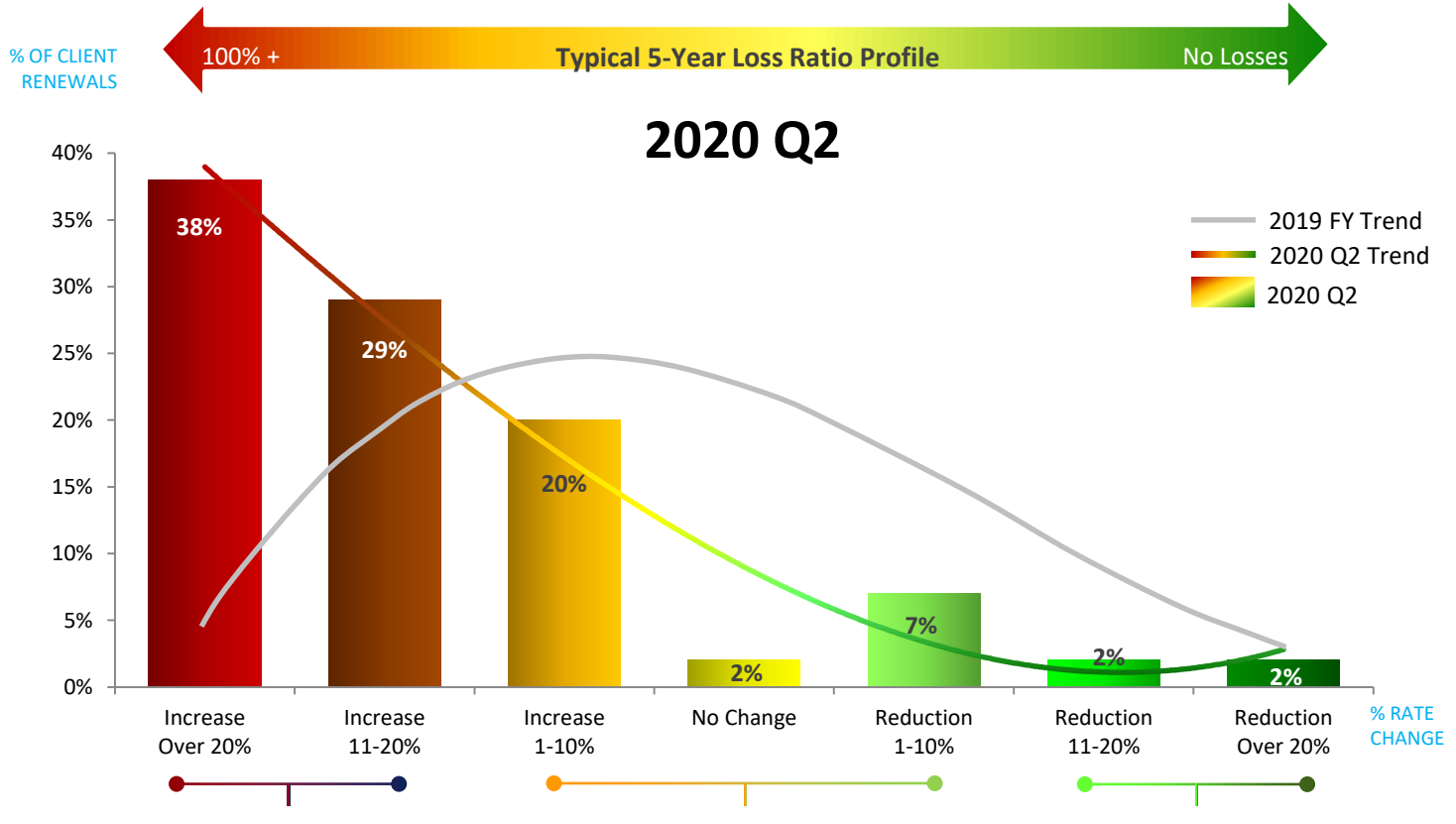
- Insurers drafting and instituting virus/pandemic type exclusions.
  - Each one more extreme and over reaching than the one before
  - Preamble excludes *"Loss, damage, cost, expense, Advance Loss of Gross Profits or Business Interruption of any type whatsoever that is related in any way to or caused directly or indirectly by any actual, suspected or potential Communicable Disease regardless of whether any other cause contributes concurrently or in any sequence to the loss, damage, cost, expense or Advance Loss of Gross Profits or Business Interruption"*

  - Communicable Disease is defined as*: a contagious disease or illness arising out of or in any manner related to an infectious or biological virus or agent or its toxic products which is transmitted or spread, directly or indirectly, to a person from an infected person, plant, animal or anthropoid, or through the agency of an intermediate animal, host or vector of the inanimate environment or transmitted or spread by instrument or any other method of transmission. Communicable Disease shall include, but not be limited to,* ***Acquired Immune Deficiency Syndrome (AIDS) or Human Immunodeficiency Syndrome (HIV), any type or strain of Severe Acute Respiratory Syndrome (SARS) or Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), West Nile Disease, chicken pox, any type or strain of influenza or infectious respiratory illness (including, but not limited to avian flu, Corona Virus or COVID-19), pneumonia, legionella, hepatitis, measles, meningitis, mononucleosis, whooping cough, cholera, bubonic plagues and anthrax***

- What are the implications of deferred maintenance or a delay in repair extending the business interruption period of indemnity



PROPERTY MARKET CONDITIONS



Significant INCREASE Examples

- Clients with adverse loss history.
- Large shared and layered programs requiring many insurers.
- Traditionally challenging risks – frame habitational, hospitality, food processing, metals/mining, energy and chemicals.

Nominal Change Examples

- Insureds with favored occupancies and historical pricing adequacy.
- Placements with minimal CAT exposure.
- Quota-share and layered programs with a surplus capacity competing on them.

Significant DECREASE Examples

- Capacity Surplus.
- Single insurer placements with multiple insurers quoting.
- Special situations – a divested asset made the risk more desirable (e.g. reduced CAT exposure or improved risk quality).

PROPERTY MARKET CONDITIONS

Renewable Energy Market

→ Due to a surge in losses & poor financial results, insurers are revaluating renewables market, and underwriting protocols – notably no longer competing for 100% share of programs

→ Market corrections are occurring at a rapid pace with significant rate increases, significant reductions in capacity and coverage.

→ "Non-Attractive Risks" - poor claims record, NAT CAT exposure, prototypical or out of warranty technology, inexperienced sub-contractors, should expect challenges with rate increases, terms and capacity.

→ Major Policy Changes:

→ NAT CAT

ITEM	IMPACT
Hail / Tornado	USD 5M – USD 25M sublimit, deductibles, policy language (micro-cracking/fracturing)
Wind	Reduced limits
Wildfire	Deductibles
Flood	Limits, deductibles depending on information regarding exposure and mitigation

→ Communicable disease and cyber exclusions

BENCHMARK RESULTS THROUGH May 1, 2020

→ Rate increases trended 20% to 40%.....outliers in excess of 70%

→ Pre-agreed builders risk rates increases in excess of 150%

→ 70% of renewals with hail sublimits between USD 5M to USD 50M

→ Typical USD 15M range

→ 80% attached micro-cracking (micro-fracture) endorsement

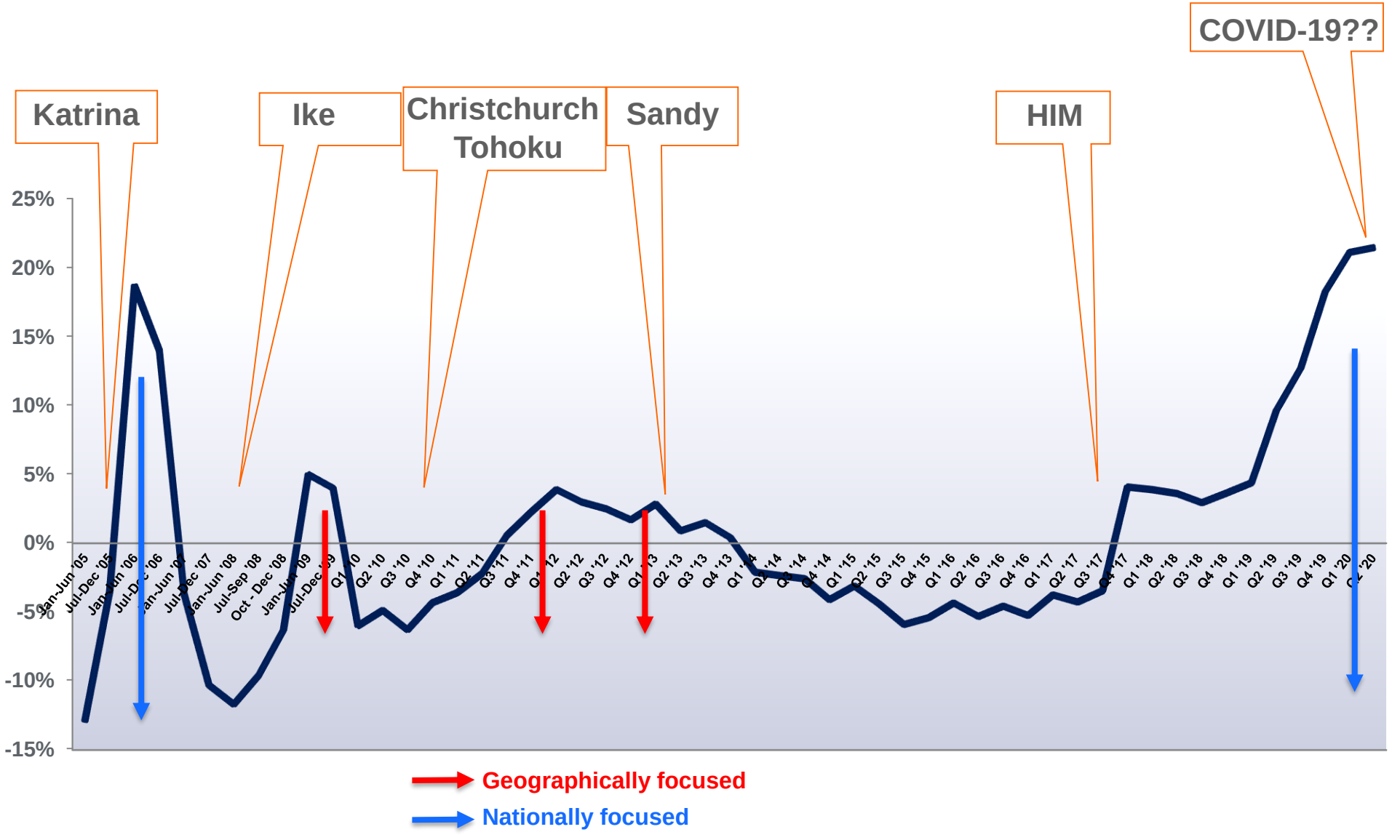
→ 50% of clients reported reduced CAT limits

→ Majority moved to quota share from 100% placements

PLACE MAP

Marsh US Property Portfolio Rate Monitor

Average Property Rate Changes – All Industries 15 Year History



FINPRO STRATEGY AND GOALS

GOALS

D&O / Employment Practices
- Projected rate increase +15% TO +20% and continuing to rise.

Side A D&O
- Rate increase will follow D&O

Crime
- Projected rate increase +5%

LIMIT & RETENTION DISCUSSION
- Limits
- Deductibles

EXECUTION STRATEGY

- Drive competition through aggressive marketing process.

CONSIDERATIONS & INFORMATION REQUIREMENTS

CONSIDERATIONS
- AEGIS & Hartford provided stable pricing over several years.
- Chubb as an alternative

INFORMATION REQUIRED
- Updated Applications & Financial Data

FINPRO MARKET CONDITIONS

Energy Power & Utility D&O Updates

- Private Company & Not For Profit FINPRO is a Hard market. For Clients with good risk profile, accounts in April experienced 10% to 20% increases and in May 20% to 30% increases. In June, the increases continued at a stronger pace and averaged +30% on good risks.
- Energy sector D&O renewals in Q1 trended worse than the overall market with +42.7% average primary change and + 56% total program change whereas the results for all industries was +25.7% and +44.1% respectively
- For Power & Utility clients, AEGIS April D&O placements trended much better than the commercial market and averaged +4.92% on primary. AEGIS led D&O programs averaged +11.46% for total program.
- Carriers are being conservative with limits and many cases reducing capacity as well as increasing retentions and premiums. On EPL, carriers are starting to add Reduction in Force (RIF) specific retentions.
- Tightening of Terms and Conditions from all carriers regardless of risk profile. For example, AIG is adding E&O, False Advertising, governmental funding, cyber and confidential information exclusions to all National Accounts (Client revenue > $1B).
- Carriers are scrutinizing financials and are asking risk specific questions related to COVID – 19. The need for a timely and complete submission is paramount. Encourage conference calls with the Insured and Carrier.
- Carriers pushing back on extensions. Reluctant to quote beyond 30 days to expiration.

Energy Power & Utility Cyber Updates

- Several leading insurers including AEGIS signaling +5% to +10% rate increase on cyber renewals.
- Our Energy clients are seeing a wave of new cyber endorsements on property renewals which vary in terms of coverage scope. Potential endorsements include absolute cyber exclusions (CL 380); full carve backs for physical damage; specified peril carve backs for fire, explosion, and machinery breakdown; limited carve backs for fire and explosion only; and limited carve back for only non-malicious cyber. Marsh teams are working on these issues across product lines which involves collaboration between our property and cvber advisors.

RENEWAL MILESTONES

Renewal Milestones	Responsibility	Target Date
Renewal Information Request	Marsh	09/01/2020
Renewal Strategy Meeting	Marsh/SEAPA	TBD
Send Renewal Information to Marsh	SEAPA	09/14/2020
Prepare and send submission to the marketplace	Marsh	Week of 09/28/2020
Meetings with Insurers (optional)	Marsh/SEAPA	TBD
Proposal	Marsh/SEAPA	Week of 10/26/2020
Renewal decision	SEAPA	Week of 10/26/2020
Binders and Certificates Issued	Marsh	Week of 10/26/2020
Renewal Program Incepts	_____	11/01/2020

TRANSPARENCY - Approved Disclosures In Marketing Process

Action	Yes	No
Disclose to a prospective insurer the names of the incumbent insurer or other prospective insurers		
Provide insurers with a pricing objective (such as a target price or range).		
Provide insurers with the terms of the expiring policy, including expiring pricing.		
Provide one or more insurers with the terms of a quote received from another insurer.		
Provide an insurer an opportunity to submit an improved quote after all other competing final quotes have been received (i.e., a “last look”)		

Please be aware that for Layered Programs, it is the practice in the industry to disclose aspects of quotes (including price, structure and/or policy language) of a prospective insurer with other markets on a layer or within different layers.

Please also refer to Marsh Compensation Guide for US Clients at
http://usa.marsh.com/Portals/9/Documetns/CompGuideforUSClients021511.pdf

Unless you instruct us otherwise, Marsh’s international placement offices will seek competitive quotes that include retail commission from non-US markets.

Date: September 22, 2020

To: Trey Acteson, CEO

From: Ed Schofield, Power System Specialist

Subject: Report for September 30, 2020 Board Meeting

Swan Lake Unit 2 Stuffing Box Repair

The Swan Lake Unit 2 Stuffing Box Repair Project started on July 27th and completed on August 7th. Although there were anticipated issues, the stuffing box seal was replaced without any major problems. The turbine shaft was heavily corroded as suspected and corrected with Bel-Zona two-part epoxy filler. Wicket gate distributor ring bushings were removed, inspected, and reinstalled with shims to re-establish wicket gate control arm clearances. Wicket gate control arm bushings were inspected and found to be in good condition. Wicket gate servomotors were timed, and timing was adjusted on the wicket gates.

Issues were discovered on the lower bushing on Wicket Gate Nos. 8 and 15. The issues will be further investigated during the September annual preventive maintenance. It is suspected that the greasing bores to the lower bushings are plugged. The lower guide bearing was disassembled and inspected and found to be in good condition. This was the first stuffing box replacement for Unit 2 and in general all mechanical items disassembled are in fair condition considering their years of service.

Lower Guide Bearing Disassembled

Cleaning Surface of Turbine Shaft

Turbine Shaft Cleaned for Epoxy Application

Stuffing Box Installed / Distributor Ring Removal for Bushing Replacement

Swan Lake Four Plex Housing Installation

The Swan Lake Four-Plex modular home units arrived at Swan Lake via barge on September 3rd. This project was awarded to Byron Construction of Ketchikan. The first phase of the project was the disassembly and removal of the existing Home #102. The task started on August 26th and was complete on September 6th. A new fire wall was added to Home #102's concrete foundation to meet the Alaska State Fire Marshal's code requirements for multi-unit homes. The four separate 12' x 54' modular sections were then set in place on the original foundation and final assembly of porches and deck completed. Byron Construction completed the project on September 20th. The Swan Lake crew will install the electrical power feed following the Swan Lake annual maintenance outage, which will complete this project for occupancy.

Barge Arriving at Swan Lake Bulkhead

Off Loading Modular Home Units

Disassembly of Existing Home #102 Removal

Setting Crane for Home #102

Swan Lake Home #102 Removed and Ready to Load on Barge

Four-Plex Assembled

Four-Plex Assembled and Back Decks Started

Four-Plex Front Decks Installed

Tyee Intake Gate Hydraulic Power Unit (HPU) Relocation Project

The Tyee Intake Gate HPU Relocation Project started on September 8th. This project was awarded to BAM LLC in Ketchikan. The project scope includes:

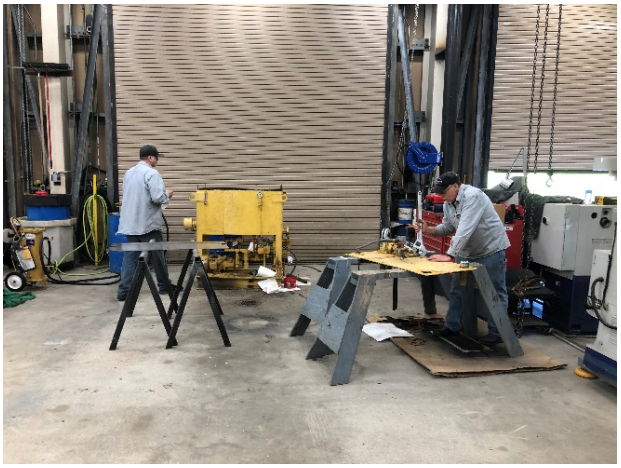
- removal of the HPU from Elevation 1442.0’ within the Tyee Intake Gate shaft
- reconditioning the HPU
- relocating the HPU outside of the Tyee Gate House at Elevation 1615.0'
- commissioning the HPU
- pulling the Tyee Intake Gate from Elevation 1217.0
- reconditioning the gate at elevation 1417.0’ within the gate shaft

Work accomplished to date includes:

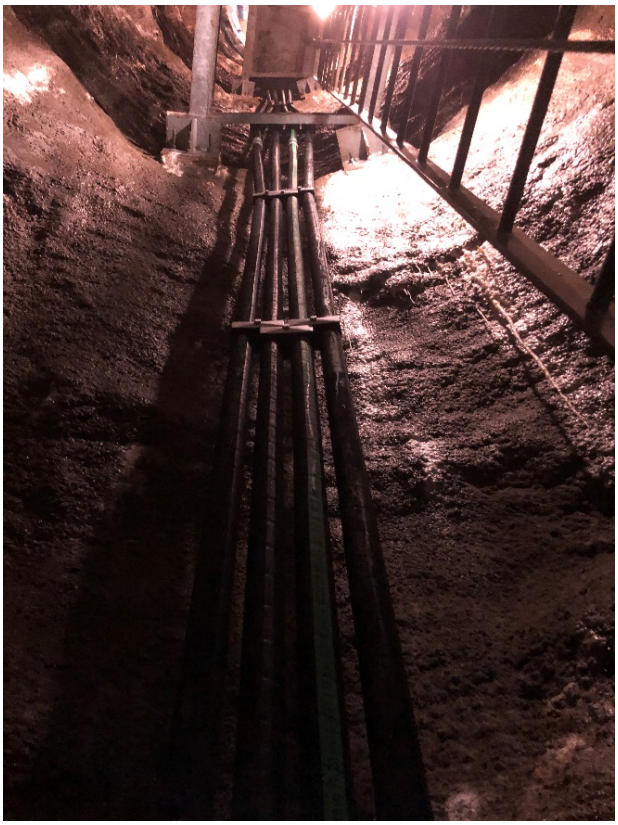
- removal, reconditioning and re-installation of the HPU outside of the Gate House at elevation 1615.0'
- installation of the HPU hydraulic lines to the gate cylinder and HPU mounting platform and enclosure
- completion of HPU electrical wiring
- removal of Intake Gate cylinder from the gate shaft for reconditioning

The cylinder is presently scheduled to be removed on September 24th via helicopter and transported to the Ketchikan shipyard for reconditioning. The 18 interconnecting intake gate stems are to be replaced as part of this project. The new gate stems are being manufactured by Eaton Industrial and scheduled to be shipped from the east coast on September 28th. The Intake Gate reconditioning portion of this project will not be started prior to delivery of the new gate stems. Weather permitting this project is scheduled for completion by October 31st.

HPU Removed from Gate Shaft staged for Helicopter Removal



HPU Reconditioning at Tyee Maintenance Shop

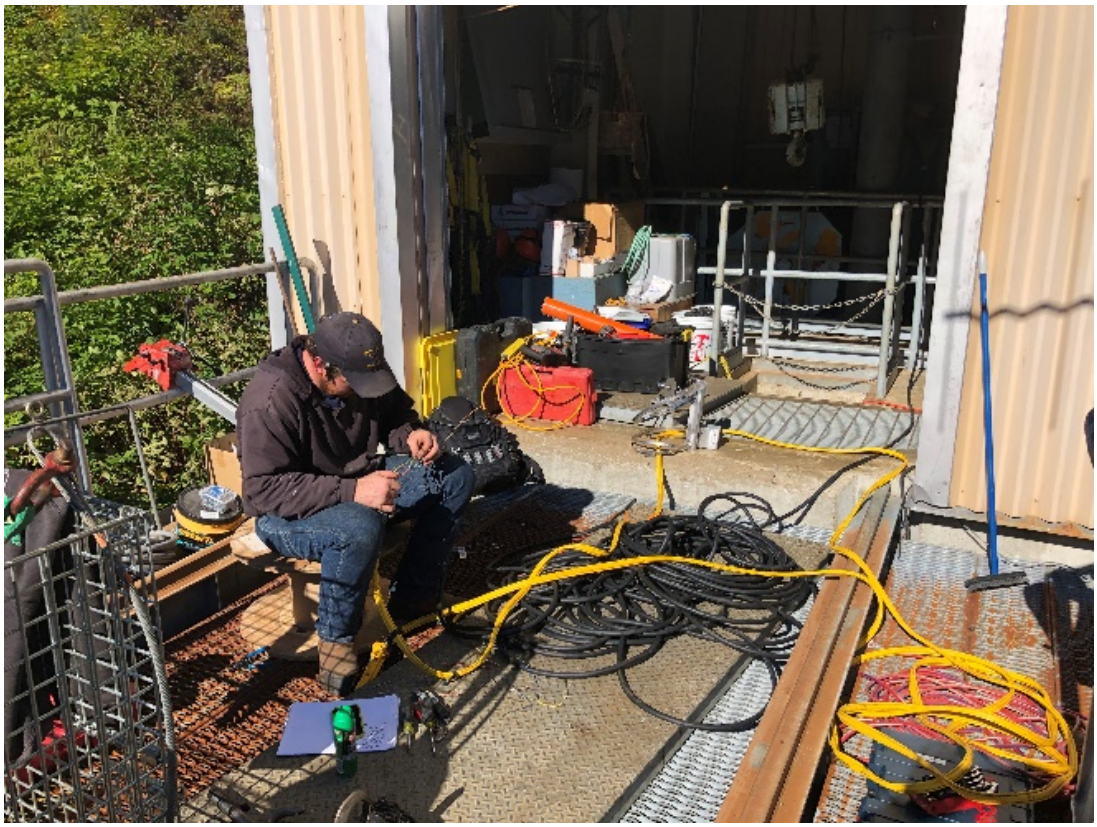


Hydraulic Oil Supply & Return Cylinder Lines Installed in Gate Shaft

Installation of HPU on New Mounting Platform and Core Holes Being Drilled for Hydraulic Line Access

New Limit Switch Work on Deck Installed in Gate Shaft at El. 1610.0'

HPU Enclosure 90% Complete



SEAPA Electrician wiring HPU Pendant Control

Intake Gate Cylinder Hanging from Hoist Control

Intake Gate Cylinder Removal from Gatehouse

Intake Cylinder staged on Gate House Deck
for Helicopter Removal

SOUTHEAST ALASKA POWER AGENCY

Date: September 23, 2020

To: Trey Acteson, CEO

From: Robert Siedman, P.E., Director of Engineering & Technical Services

Subject: Report for September 30 Board Meeting

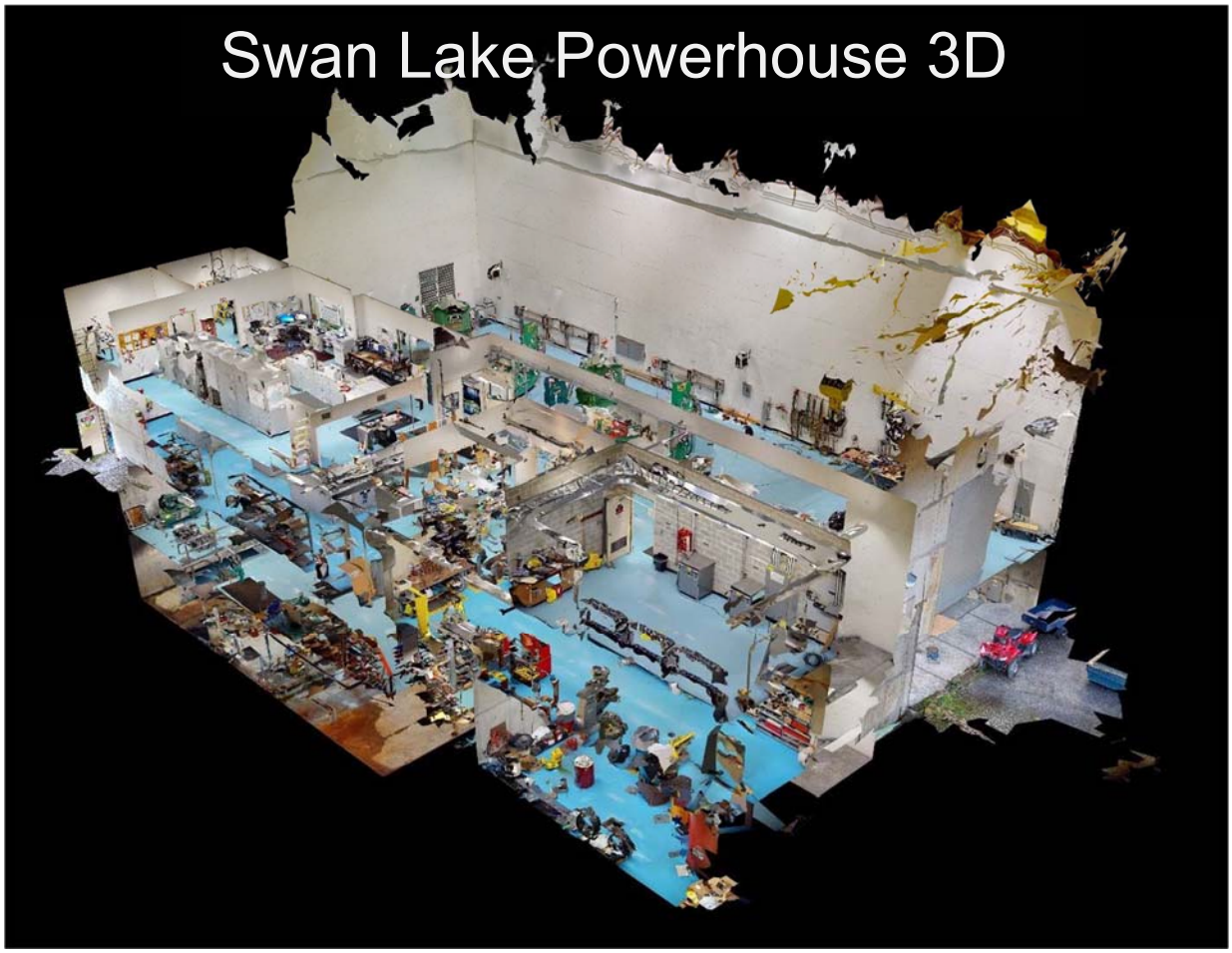
Tyee and Swan Lake Markers and Pillows

The Tyee and Swan Lake snow markers and snow pillows were scheduled for annual maintenance during the summer of 2020. By utilizing helicopter flight hours already scheduled for ongoing projects (Tyee Gate House & Swan Marker Balls), maintenance was successfully performed with significantly lower flight costs.

The Tyee snow marker near Tyee Mountain required minor adjustments to tension cables however the snow marker at the farthest reach of the Tyee drainage basin was knocked over on its side. The damaged marker was repaired, and deeper/stronger anchors were installed.

Swan Lake Markers were all in good condition with only minor adjustments required. The Tyee snow pillow was in good condition however the Swan Lake snow pillow had a visit from a bear in the late spring of 2020. The bear chewed the communication cable 8 feet up the snow pillow where the cable was attached and ripped the cable out of the snow pillow. A new cable is currently on order and a plan is in place to drill holes in the snow pillow communication stand to route the new cable internally for next seasons snow and spring bear season.

Swan Lake Station Service Switchgear



In early September 2020, EPC placed an order for EATON equipment to include the Switchgear, Panel Boards and Transformers (long lead time items). A kickoff site visit with EPC Engineers was performed on September 16-18. During the site visit, conduit and cable tray routes were further identified, diesel generator start/stop, and interconnection circuits were determined and a full onsite 3-dimensional survey with cloud-based animations was performed (see dollhouse view above). The project is on schedule for a late spring install and commissioning.

Stikine Crossing Submarine Cables

SEAPA has completed negotiations with our preferred submarine cable manufacturer (Sumitomo) and has delivered a draft contract to their project manager for final review. An anticipated Notice-To-Proceed (NTP) is expected to occur in October.

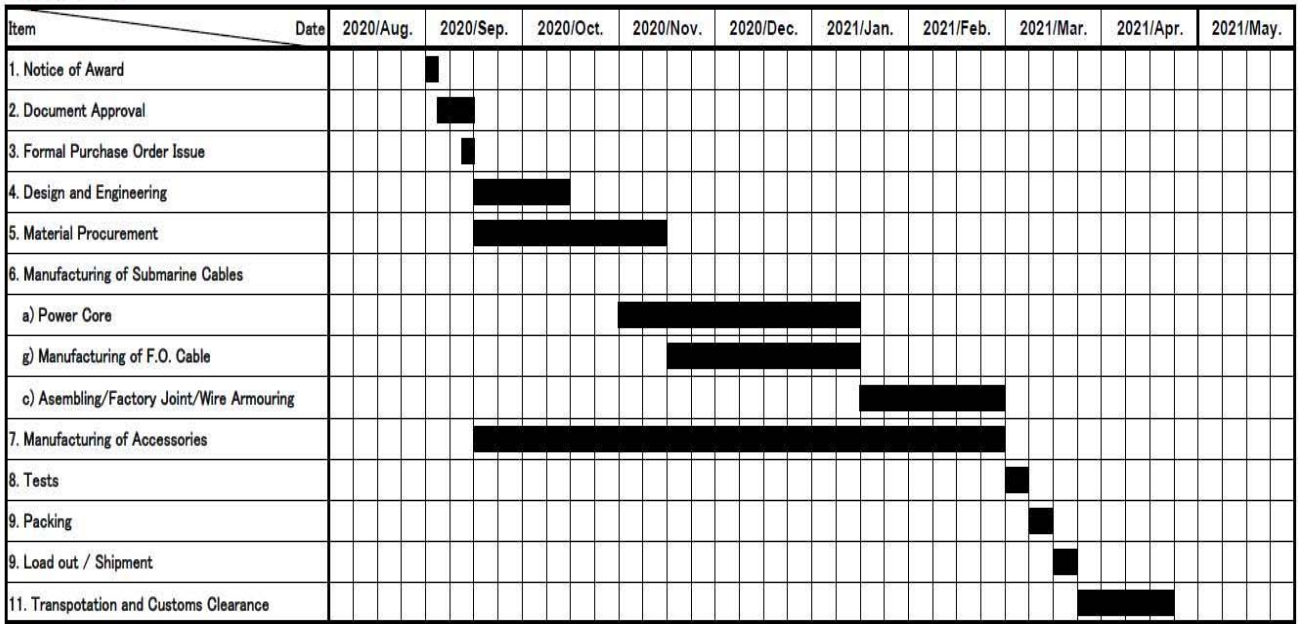
Approximately 100 items were negotiated over a 6-week period. Most notably was the contract cost. The original bid proposal from Sumitomo for a Double-Armored 3-Phase Submarine cable (including removal and install) came in with a total cost of $13,941,085. After negotiations, the final agreed not-to-exceed (NTE) cost was $11,700,320 for a total negotiated savings of **$2,240,765**. A 10% contingency and $500,000 SEAPA related expenditure budget (consultants, studies, permitting, etc.) is in addition to the total SEAPA NTE agreement.

A tentative schedule (below) demonstrates cable manufacturing beginning in late September or early October 2020 with a proposed manufacturing completion milestone of late April 2021. If manufacturing milestone dates are on schedule as proposed, installation of the new cable will occur in late May or Early June 2021.

Tentative Manufacturing Schedule for 69kV Submarine Cables

Without F.J Tensile Bending Test

Double Wire Armour



Tyee Main Generator Governor PLC's

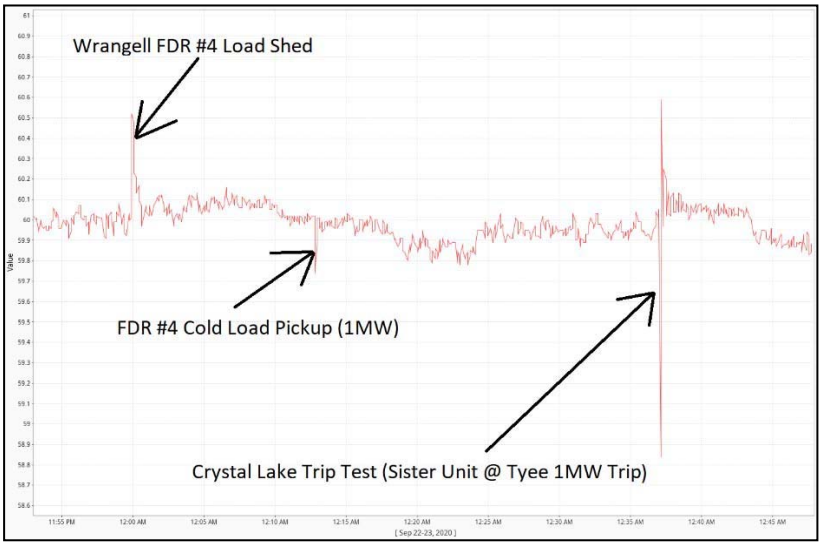
Installation of the first governor PLC (Flex 500 by Woodward) began on September 2. Due to as-built drawings being inaccurate, unlabeled wiring and unanticipated troubleshooting of existing circuits, the first unit was more challenging than anticipated. Completion of the first unit governor PLC install occurred on September 7 however due to the scheduled outage for annual maintenance at Tyee, testing and commissioning was postponed until September 22.

On September 22, Tyee Unit 1 was tested at full functionality to include wastewater mode, needle transitioning, droop functionality and isochronous frequency mode. A load rejection test was performed at midnight September 22 to minimize impact to Wrangell Power & Light customers on Feeder #4.

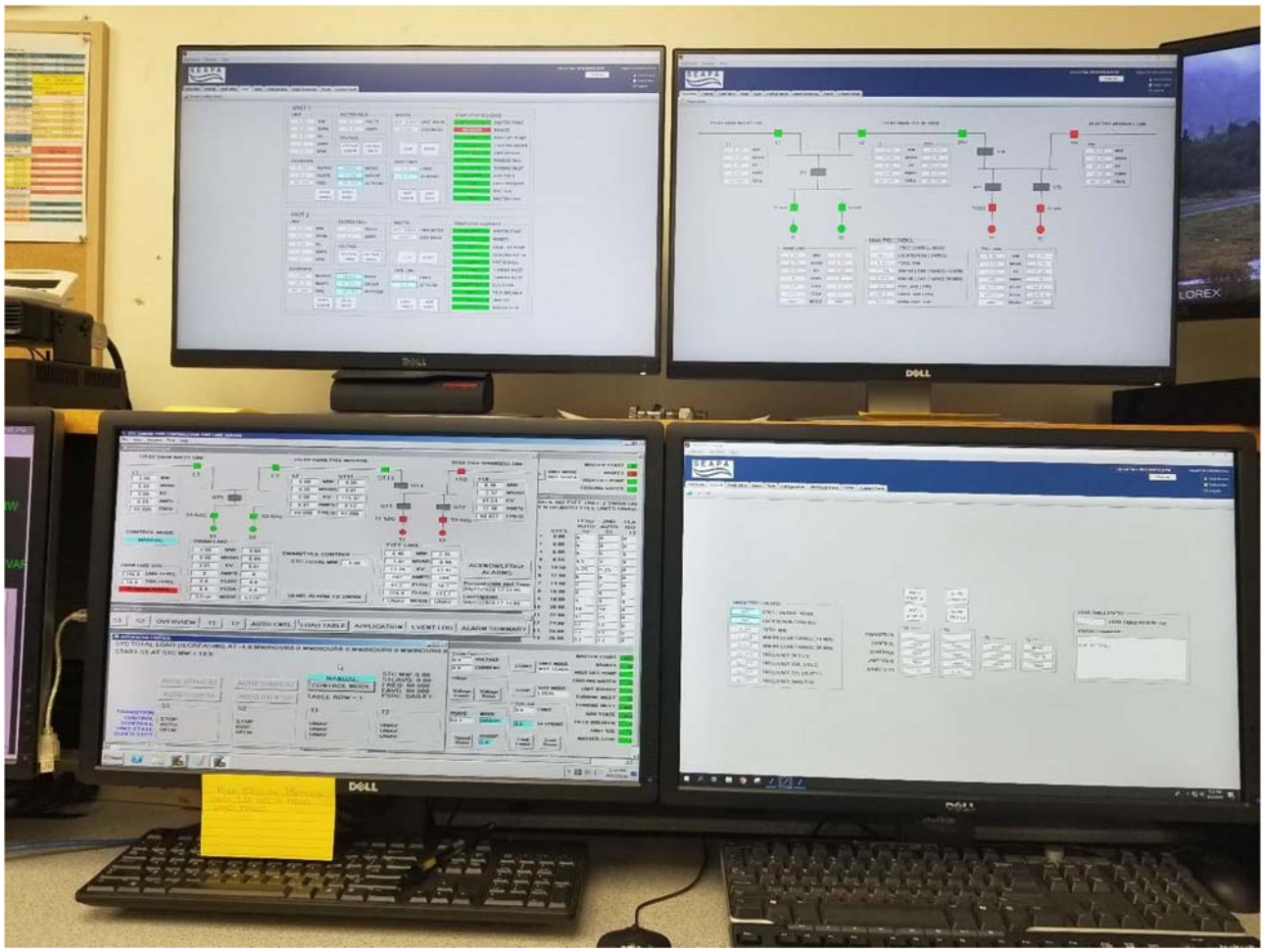
The results of the load rejection test (1MW of power dropped from Feeder #4) was extremely successful demonstrating that the new governor programming is highly responsive. With Unit 1 commissioning complete, Unit 2 is currently being installed.

RR-19305 required replacing existing Modicon Programable Logic Controllers (PLC) hardware with Woodward Flex 500 hardware specifically designed for turbine control applications. The Tyee Modicon hardware was at the end of its useful life. A failure on Unit 1 Governor PLC in November of 2019 required installation of the spare PLC and therefore put a critical timeline on replacement.

In late August 2020, SEGRITY completed the design portion of the project to include modeling the frequency response of the new Governor PLCs.



STCS Modernization (STCS II)



The existing Swan/Tyee Control System (STCS) is running on a software platform developed in 2001 known as VBA.net (Visual Basic for Applications). The program software and hardware have not been updated since it was commissioned in 2011. Operating on a Windows Server 2008 machine with software that was compiled with now unsupported programs, updating STCS became a priority to SEAPA. STCS II is currently complete regarding the design phase and is currently operating in parallel (at Swan and Tyee) to the old STCS program for testing purposes. Final commissioning is anticipated to occur in early October.

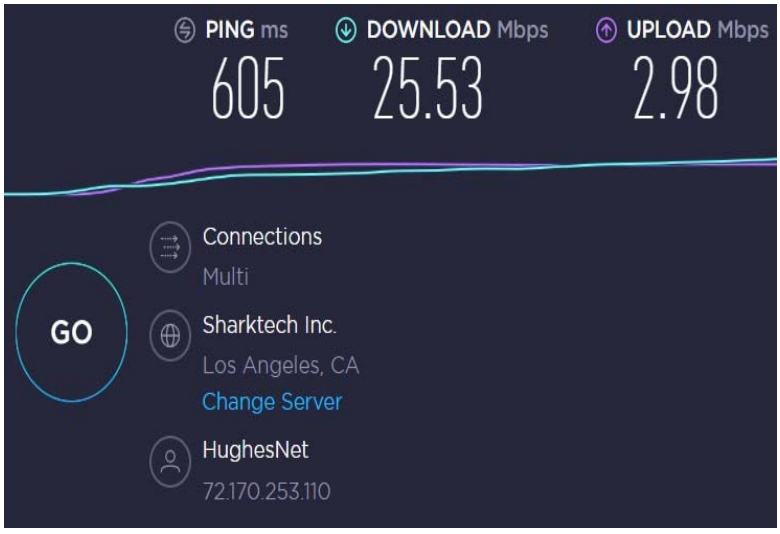
Tyee HughesNet Structure

The Tyee HughesNet structure project is complete. The final completed remote facility has a 55ft tower, satellite dish, 6 solar panels, a communication building and an auto low voltage propane generator system.

The functionality of this system receives a satellite signal from the HughesNet Gen 5 satellite, converts the satellite signal to a 900Mhz radio wave, transmits the radio signal 1.5 miles to the Tyee Powerhouse which is thereby utilized for high speed internet.

The solar panels maintain a battery voltage at the remote site 9 months of the year when the sun is visible in the sky (rain, cloud or sunny days). During the 3-month winter solstice period, the propane generator senses voltage on the battery bank and automatically starts when voltages are low subsequently recharging the system. This should occur ever 3 days and run for 4 hours allowing for enough capacity on propane to generate/charge for 2 solstice seasons when the sun is not available for solar power.

The final internet speeds after radio transmission as recorded in the powerhouse, bunkhouse and personnel housing units is approximately 25MB/s download (as seen below). As compared to the old microwave connection of 0.5MB/s, a total realized increased in connection speed was 5,000%.



Operations Plan Update

The Swan Lake reservoir reached spill levels (Elevation 342 ft) on July 24. First time operation of the gates at full lake capacity was performed with successful confirmation that all PLC, HMI and hydraulic systems previously installed were operationally reliable. Since spill levels were reached on July 24, the lake level control algorithm at Swan Lake has maintained an Elevation of 342.0 ft, verifying that automatic lake level control functionally operates as designed. An update on total spill for the 2020 season will be presented at the December Board meeting. Tyee has also been at spill levels since mid- July. With both lakes at spill, operations will resume after the STI outage, which is scheduled to be complete in early October. The STI will subsequently be utilized to maintain peak efficiency(s) at Swan with minor net transfer of MWh's across the STI. There are no anticipated changes required for 2020 draft limits in the foreseeable future.

SOUTHEAST ALASKA POWER AGENCY

Date: September 19, 2020

To: Trey Acteson, Chief Executive Officer

From: Clay Hammer, Operations Manager

Re: Report for September 30, 2020 Board Meeting

MAJOR CONTRACTS and PROJECTS

Tyee Road Access to Tidewater Project

Access to the Tyee facility continues to be problematic given the only two means of access are by air utilizing contract aircraft and runway or by boat through a shallow tidal river estuary. This presents complications when weather and tides are not favorable creating serious logistical challenges for getting crew and goods to and from the plant as well as any form of outside assistance in the event of an emergency.

A road route to deeper tide water has been identified that would include a small dock option and a place to unload goods and materials without having to maintain or transit the narrow river channel. What remains is Preliminary Design work to firm up the road route and design, quantify material amounts, and identify permitting costs and requirements.

A Request for Proposals issued on August 26, 2020 for the Preliminary Design work. Interested firms requested that deadlines for the project be extended until the Spring/Summer of 2021 when weather and access should be more favorable and travel restraints due to the COVID Pandemic may be less restrictive. The bid due date was extended to October 30, 2020 and the project completion date to September 30, 2021 to accommodate their requests. Staff will seek board approval for the project during the December board meeting.

Figure #1 - Current Tyee Access route by water

Tyee Fuel and Supply Barge

Depending on the needs of the camp one or more barge runs are scheduled each season to bring fuel and heavy supplies out to the project and any freight or heavy items requiring disposal back to Wrangell.

This season Ketchikan Ready Mix provided barge services from their Wrangell location to deliver fuel, crushed rock, and airport grade road sand to the facility. This is a service that they have provided to SEAPA numerous times using the same shallow draft barge and small pusher tug they use for dredge work on the Stikine River. Even with this unique shallow draft capability this event requires advanced planning and coordination to take advantage of the season's largest tides. The contractor typically likes to see a tide of 16-18ft or better during daylight hours depending on the amount of freight to be delivered.

Figure #2 - Ketchikan Ready Mix tug and barge rounding the bend shown in Figure #1 on the previous page.

Figure #3 - Barge unloading at Tyee ramp.

Brushing Program

SEAPA awarded two brushing contracts to Gage Tree Service of Wasilla, Alaska earlier this season that were delayed due to the COVID-19 pandemic. Restrictions eventually eased and the crew was able to travel and perform the work. Once on site, the crew made short work of both contracts. The Neets Bay Project was 13.91 acres in size but very remote and on steep terrain with helicopter being the primary means of access. That work was completed in approximatly 5 days. The Mitkof Island contract was just over 44 acres in size with access points along the Mitkof Highway. This work took just under 10 days to complete. The work performed was commendable and staff is very pleased with the results.

Figure #4 - Sections of completed Mitkof Island and Neets Bay brushing work

Annual Maintenance Outage

At the time of this report the annual maintenance outage for the plants and transmission lines is approximately 50% complete. The Tyee Transmission Line and related work is complete, and the line maintenance contractor has moved into the Ketchikan area and started the Swan/Bailey Transmission Line and related work.

Maintenance Items noted on the Tyee section:

- A thermal imaging report from earlier this year indicated hot spots on switch points in the Petersburg substation. These were added to the maintenance list for inspection and cleaning. During inspection it was noted that inverted jumper connections from the overhead buss work had water intrusion that had frozen and compromised the lower connections. There were three jumpers total that were replaced because of this with drain holes added to other connections to prevent that from happening again in the future.

- Load Tap Changer (LTC) Inspection Petersburg Substation Transformer: Oil sampling indicated possible contamination or other concerns within the LTC compartment in the Petersburg Substation Transformer. An inspection and oil change were scheduled for this outage. SEAPA contractor, Specialty Engineering, performed the work, drained the oil and did an internal inspection. Everything checked out fine and the oil was changed.

- Insulator Bells on Wrangell Island: A total of 12 damaged insulator bells were found in two different locations by High Bush Lake. These were most likely the result of lightning strikes experienced during the 4th of July outage in 2019. Given that the system is insulated at 138Kv but operated at only 69Kv the bells continued to do their job even in their compromised condition. These were changed out during the maintenance outage without incident.

- All regularly scheduled annual Tyee plant shut down PMs were completed.

Maintenance Items noted on the Swan/Bailey Section:

- Carroll Inlet Marker Balls and Line Dampers: Contractor Electric Power Constructors (EPC) subcontracted TEMSCO Helicopters and completed the changeout of the marker balls and tie wraps and updated the line damper configuration for the crossing. In addition to past marker ball configuration changes, it was noted that the damper scheme for the crossing had also been changed over the years. A qualified engineering firm reviewed the existing configuration and recommended the replacement and addition of dampers in specific locations on the line. Appropriate dampers were obtained, and the work was added to the marker ball work and installed at no additional cost to SEAPA.

- At the time of this report changing out of Section Switch SB-91 is under way at the Swan Lake switchyard and the crew is hard at work addressing planned outage PMs.

Figure #5 - EPC line crew discussing placement strategy with TEMSCO pilot

Figure #6 - TEMSCO helicopter rigged with new 50’ short haul line rated for External Human Cargo

Figure #7 - Marker Ball Exchange on Swan Lake Crew Quarters lawn

Annual Transmission Line Maintenance Contract

SEAPA's Annual Transmission Line Maintenance Contract is up for renewal next year. This is a three-year contract with an option for an additional one-year extension if mutually acceptable. An RFP issued on August 12th and two qualified bids were received on September 14, 2020. Staff's recommendation of award will be presented under New Business in the board packet.

Tyee Lake Report

The Tyee crew continues to stay busy with the regularly scheduled PMs and plant work. In addition to its normal duties, the crew also accomplished the following:

- Assisted SEAPA staff in the construction and placement of permanent Hughes Net SAT Pad installation
- Wiring of Gate House HPU project
- Rebuild of Gate House HPU unit
- Site visit at Burnett Peak; painted repeater shack and replaced failed Marine terminal communications radio
- Assisted staff with deployment of new lake level sensor
- Replumbed the Forest Service cabin cookhouse
- Mowed the brush along the roadway and airport

Last Quarter's Scheduled Safety Training included:

- CPR First Aid AED
- Training on 3-M Retrieval System for gatehouse work
- Rigging and Lifting
- Chain Saw Safety training for Brush Crew

SEAPA 2020 BOARD MEETING DATES

Date(s)		Weekday(s)	Location[1]	Comments
December	10	Thursday	Ketchikan	Regular Board Meeting

2020

January

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February

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March

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29	30	31				

April

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May

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31						

June

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July

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26	27	28	29	30	31	

August

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30	31					

September

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27	28	29	30			

October

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November

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29	30					

December

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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

(See attached for additional information on 2020 meeting dates and events)

[1] Meetings may be held electronically pending Center for Disease Control social distancing guidelines.

2020 MEETING DATES | EVENTS

DATE	ORGANIZATION/EVENT	LOCATION
	JANUARY	
1	**SEAPA Holiday (New Year's Day)**	**N/A**
2	Ketchikan City Council	Ketchikan
6	Petersburg Borough Assembly	Petersburg
14	City & Borough of Wrangell Assembly	Wrangell
16	Ketchikan City Council	Ketchikan
21	Petersburg Borough Assembly	Petersburg
28	City & Borough of Wrangell Assembly	Wrangell
28-30	APA Manager's Forum & State Legislative Conference	Juneau
	FEBRUARY	
3	Petersburg Borough Assembly	Petersburg
4-6	SE Conference Mid-Session (4th-5th) & Health Care Summit (6th)	Juneau
6	Ketchikan City Council	Ketchikan
11	City & Borough of Wrangell Assembly	Wrangell
17	**SEAPA Holiday (President's Day)**	**N/A**
18	Petersburg Borough Assembly	Petersburg
20	Ketchikan City Council	Ketchikan
18-21	NWHA Annual Conference & FERC Meeting	Seattle
25	City & Borough of Wrangell Assembly	Wrangell
	MARCH	
2	Petersburg Borough Assembly	Petersburg
5	Ketchikan City Council	Ketchikan
10	City & Borough of Wrangell Assembly	Wrangell
16	Petersburg Borough Assembly	Petersburg
19	Ketchikan City Council	Ketchikan
24	City & Borough of Wrangell Assembly	Wrangell
31	**SEAPA BOARD MEETING**	**ELECTRONIC**
	APRIL	
2	Ketchikan City Council	Ketchikan
6	Petersburg Borough Assembly	Petersburg
14	City & Borough of Wrangell Assembly	Wrangell
TBD	SEAPA ANNUAL AUDIT	Ketchikan
16	Ketchikan City Council	Ketchikan
16-17	NWHA Strategic Planning Meeting	Seattle
20	Petersburg Borough Assembly	Petersburg
28	City & Borough of Wrangell Assembly	Wrangell
	MAY	
4	Petersburg Borough Assembly	Petersburg
7	Ketchikan City Council	Ketchikan
12	City & Borough of Wrangell Assembly	Wrangell
18	Petersburg Borough Assembly	Petersburg
19-21	NHA Waterpower Week (hydro/marine energy)	Washington, D.C.
21	Ketchikan City Council	Ketchikan
25	**SEAPA Holiday (Memorial Day)**	**N/A**
26	City & Borough of Wrangell Assembly	Wrangell
	JUNE	
1	Petersburg Borough Assembly	Petersburg
2-4	APA Federal Legislative Conference	Washington, D.C.
4	Ketchikan City Council	Ketchikan
9	City and Borough of Wrangell Assembly	Wrangell
15	Petersburg Borough Assembly	Petersburg
18	Ketchikan City Council	Ketchikan
23	City and Borough of Wrangell Assembly	Wrangell
30	**SEAPA BOARD MEETING**	**ELECTRONIC**
	JULY	
2	Ketchikan City Council	Ketchikan
3	**SEAPA Holiday (Independence Day)**	**N/A**
6	Petersburg Borough Assembly	Petersburg
14	City and Borough of Wrangell Assembly	Wrangell
13-16	AEGIS Policy Holder's Conference	San Diego
14-16	Hydrovision International	Minneapolis

16	Ketchikan City Council	Ketchikan
20	Petersburg Borough Assembly	Petersburg
28	City & Borough of Wrangell Assembly	Wrangell
	AUGUST	
3	Petersburg Borough Assembly	Petersburg
6	Ketchikan City Council	Ketchikan
11	City and Borough of Wrangell Assembly	Wrangell
17	Petersburg Borough Assembly	Petersburg
20	Ketchikan City Council	Ketchikan
25	City and Borough of Wrangell Assembly	Wrangell
25-28	Alaska Power Assoc./AIE Annual Mtg	Homer
	SEPTEMBER	
3	Ketchikan City Council	Ketchikan
7	**SEAPA Holiday (Labor Day)**	**N/A**
8	Petersburg Borough Assembly and City and Borough of Wrangell Assembly	Petersburg and Wrangell, respectively
17	Ketchikan City Council	Ketchikan
21	Petersburg Borough Assembly	Petersburg
22	City and Borough of Wrangell	Wrangell
24	City & Borough of Wrangell Assembly	Wrangell
30	**SEAPA BOARD MEETING**	**ELECTRONIC**
	OCTOBER	
1	Ketchikan City Council	Ketchikan
5	Petersburg Borough Assembly	Petersburg
8-9	APA Accounting & Finance Workshop	Anchorage
13	City & Borough of Wrangell Assembly	Wrangell
15	Ketchikan City Council	Ketchikan
19	Petersburg Borough Assembly	Petersburg
27	City & Borough of Wrangell Assembly	Wrangell
	NOVEMBER	
2	Petersburg Borough Assembly	Petersburg
5	Ketchikan City Council	Ketchikan
11	**SEAPA Holiday (Veteran's Day – Observed)**	**N/A**
10	City & Borough of Wrangell Assembly	Wrangell
16	Petersburg Borough Assembly	Petersburg
19	Ketchikan City Council	Ketchikan
24	City & Borough of Wrangell Assembly	Wrangell
26-27 (T-F)	**SEAPA Holiday (Thanksgiving & Day After)**	**N/A**
	DECEMBER	
2-3	APA Annual December Meeting Series	Anchorage
3	Ketchikan City Council	Ketchikan
7	Petersburg Borough Assembly	Petersburg
8	City & Borough of Wrangell Assembly	Wrangell
10	**SEAPA BOARD MEETING**	**KETCHIKAN**
17	Ketchikan City Council	Ketchikan
21	Petersburg Borough Assembly	Petersburg
22	City & Borough of Wrangell Assembly	Wrangell
24-25	**SEAPA Holiday (Christmas Eve and Christmas Day)**	**N/A**

(Assembly and Council Meetings noted on the calendar above are estimated as a result of the schedule below)

- Petersburg Borough Assembly Meetings — 1st & 3rd Monday every month
- City & Borough of Wrangell Assembly Meetings — 2nd & 4th Tuesday every month
- Ketchikan City Council Meetings — 1st & 3rd Thursday every month