SOUTHEAST ALASKA POWER AGENCY
Regular Board Meeting

Best Western Plus Landing Hotel
Ketchikan, Alaska

Agenda for Thursday, April 25, 2013| 9:00a.m.– 5:00 p.m. AKDT

Access No. 1-800-315-6338
Access Code: 73272#

1. Call to Order
   A. Roll Call
   B. Communications/Lay on the Table/Introduction of Visitors **COMMUNICATIONS**
   C. Disclosure of Conflicts of Interest

2. Approval of the Agenda

3. Persons to be Heard

4. Review and Approve Minutes **MINUTES**
   A. March 5-6, 2013 Minutes of Regular Board Meeting

5. Financial Reports **FINANCE**
   A. Financial Statements – January 2013
   B. Financial Statements - February 2013
   C. Disbursement Approvals – March 2013 **DISBURSEMENTS**

6. CEO Report **CEO RPT**
   A. Best Practices
   B. Public Relations
   C. Swan Lake Reservoir Expansion
   D. Request for Offers
   E. Kake-Petersburg Intertie Project (KPI)
   F. Agency Financial Perspective
   G. Staffing
   H. Presentation Introductions

7. Joel Paisner Presentation - History

8. John Heberling (D.Hittle & Associates) - SEAPA R&R Plan Review

9. Allen Dashen – Financial Advisor for SEAPA Bond Sale (2009)
   SEAPA Financial Project Overview

10. Robert Venables (Southeast Conference) Update on Regional Planning Efforts

11. CEO – Overview of Bundled Services

12. Project Reports
    A. Swan Lake
    B. Tyee Lake

13. Operations Manager/Director of Special Projects Reports **OPS/DSP**
    A. **Operations Manager's Report (Henson)**
        i. Regulatory
        ii. Major Contracts
        iii. Conclusion
    B. **Director of Special Projects Report (Wolfe)**
        i. SCADA Project Update
        ii. Tyee Lake Stream Gage Installation
        iii. Swan Lake Reservoir Expansion
        iv. Swan Lake Spare Winding
        v. Swan Lake Maintenance Support Managed by SEAPA
        vi. Tyee Cooling Water Conversion
        vii. Request for Offers of Power and Energy (RFO)
        viii. Department of Commerce, Community & Economic Development (DCCED) Grant

14. Old Business **OLD**
    A. Diesel Protocol
    B. Conflict of Interest Policy Resolution
    C. Update on Energy Storage
    D. Amended iPad Policy Resolution

15. New Business **NEW**
    A. Consideration of Amendment to Budget Re O&M Managers' Attendance at SEAPA Board Meetings
    B. Consideration of Resolution No. 2013-046 Re: Support for Swan Lake Reservoir ExpansionProject
    C. Consideration of Amendment to Budget for R&R Project No. 230-13 (Boat Dock Replacement at Tyee Lake) and Award of Contract
    D. Consideration and Approval of Contract for Satellite Communications System Project
    E. Consideration and Approval of Contract for Tyee Gatehouse Generator Project
    F. Consideration and Approval of Contract for 2013 Annual Substation/Switchyard Equipment Maintenance Contract
    G. Review 2013 Board Meeting Schedule
    H. Future Agenda Items

16. Director Comments

17. Adjourn

SOUTHEAST ALASKA POWER AGENCY

Regular Meeting
March 5 & 6, 2013

The Nolan Center|Wrangell, Alaska

1) Call to Order/Roll Call

Vice Chairman Sivertsen called the meeting to orderat11:00a.m.AKDTon March 5, 2013,held at The Nolan Center in Wrangell, Alaska.

Roll Call

The following directors and alternates were present, thus establishing a quorum of theboard:

Director	Alternate	Representing
Bob Sivertsen	Andy Donato	Swan Lake – Ketchikan
Dick Coose	Jay Rhodes (telephonic)	Swan Lake – Ketchikan
Sam Bergeron	Charles Freeman	Swan Lake - Ketchikan
Joe Nelson		Tyee Lake – Petersburg
Brian Ashton	Clay Hammer	Tyee Lake – Wrangell

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

Trey Acteson	Chief Executive Officer, SEAPA
Eric Wolfe	Director of Special Projects, SEAPA
Steve Henson	Operations Manager, SEAPA
Kay Key	Controller, SEAPA
Sharon Thompson	Executive Assistant, SEAPA
Joel Paisner	Attorney, AterWynne

2) Approval of the Agenda

Mr.Coose moved to approve the agenda. Mr. Nelson seconded the motion. The motion carried unanimously. (Action 13-190)

3) Election of Officers

Mr. Coose moved to nominate Bob Sivertsen as Chairman. Mr. Nelson seconded the motion. The motion carried unanimously. (Action 13-191)

Mr. Nelson moved to nominate John Jensen as Vice Chairman. Mr. Coose seconded the motion. The motion carried unanimously. (Action 13-192)

Mr. Ashton moved to nominate Sam Bergeron as Secretary-Treasurer. Mr. Donato seconded the motion. A discussion followed on whether alternates should be making and seconding motions, with the Chairman advising thatclarification would be requested from Mr. Paisner on the matter. **Mr. Coose seconded the motion. The motion carried unanimously.** (Action 13-193).

4) Persons to be Heard

James Stough, a representative of the Borough of Wrangell, informed the SEAPA board that as a matter of due diligence and as is required by documents prepared when SEAPA was formed, that Wrangell would be moving forward with a committee to look into the pros and cons of the project ownership of SEAPA. He advised that the Wrangell Borough would be notifying Petersburg of their intent to start the procedure and looked forward to working with Ketchikan on it as well.

Bob Maxand, a resident of Wrangell, explained he has been in Wrangell for 70 years and on the original Council that included Petersburg when the Tyee Lake Project was formed. He expressed his concern about a half dozen people in Wrangell that had issues with SEAPA. He explained that he had studied SEAPA's record and commended SEAPA for the good job they've done.

Dorothy Sweat, also a resident of Wrangell and member of Wrangell's WMB Board, voiced her support of Thomas Bay Power Authority and did not want to see any positions eliminated. She questioned why SEAPA would look to hire more employees at a time when positions at TBPA may be eliminated. Mr. Acteson explained that a study only recommended staffing consolidationsas an option to save money and that existing people could be used if they met the skillsets required for the work. She also expressed a concern about utility rate increases and wage increases for SEAPA staff. Chairman Sivertsen explained that SEAPA is a wholesale power provider and that she is a customer of Wrangell's local utility who could increase rates based on demand, but that SEAPA did not anticipate any rate increases on the immediate horizon. He also addressed her question on compensation for SEAPA employees explaining that compensation does increase in an effort to find and keep qualified employees in a competitive market, and that it is the SEAPA board that diligently determines whether to increase compensation, not the SEAPA staff.

The meeting recessed at 11:27 a.m. and reconvened at 11:33 a.m.

5) Board Orientation

Mr. Paisner presented a slide show orienting new board members on SEAPA's history and structure. He explained that SEAPA was organized to serve as a separate, distinct entity from its member utilities, to deliver power at a flat, wholesale rate, which has remained at 6.8 cents/kWh for the past 16 years. He covered the key agency agreements and explained how SEAPA is governed. He outlined the role of the Agency's board members and their fiduciary duties. He also provided an overview of the Power Sales Agreement and the Indenture of Trust contract document between SEAPA and the trustee who represents SEAPA's bondholders noting that bondholder approval is required before any changes can be made to the full requirements obligation of the Power Sales Agreement. He also covered the operations and maintenance of SEAPA.

Chairman Sivertsen requested clarification from Mr. Paisner on whether alternates could make and second motions and after a lengthy discussion it was determined that the Bylaws allow that the board could decide the issue.

Mr. Bergeron moved forvoting members to make and second motions and that alternates do not, but that alternates are encouraged and allowed to enter into discussions on the motions. Mr. Coose seconded the motion. The motion carried four to one with Mr. Sivertsen, Mr. Bergeron, Mr. Coose, and Mr. Nelson voting in favor of the motion, and Mr. Ashton voting no. (Action 13-194)

6) Review and Approve Minutes

Mr. Coose moved to approve the minutes of the Regular Meeting December 11, 2012, Special Meeting of January 17, 2013, and Special Meeting of February 8, 2013. Mr. Nelson seconded the motion. The motion carried unanimously. (Action 13-195)

7) Financial Reports

Mr. Sivertsen commented on the amount of detail available in the financial statements covering individual checks issued and what may or may not be necessary for review, with Mr. Coose concurring and commenting that copies of vendor's billings included with disbursements are unnecessary as they are voluminous in the board packets. He suggested that if anyone needed to see a copy of a particular billing, they could be obtained from the SEAPA office.

Mr. Acteson provided an overview of the financial statements and commented that the R&R projects were picking up momentum. Discussion followed on the SkyWrap project and that it would not be going forward this year. Mr. Ashton apprised the board of a newer satellite getting launched to service the west coast, noting also that he deferred to other dealers for resolutions to communication issues as he may have a conflict of interest. Mr. Bergeron encouraged the board to look for ways to economize so funds are not held in the R&R account for projects that may not move forward, which would then free up the funds for either rebates or a reduction in the whosesale power rate, while at the same time fulfiling the needs of SEAPA's projects.

Mr. Coose moved to approve Financial Statements for the months of October, November, and December 2012. Mr. Sivertsen seconded the motion. The motion carried unanimously. (Action 13-196)

Mr. Coose moved to approve disbursements for the months of December 2012, January 2013, and February 2013 in the amount of $2,205,262.64. Mr. Nelson seconded the motion. The motion carried unanimously. (Action 13-197)

The meeting recessed for lunch at 12:52 p.m. and reconvened at 1:31 p.m.

8) CEO Report

Mr. Acteson summarized his CEO Report with an overview of the progress made on SEAPA's implementation of best practices, public relations, and provided a legislative update. He advised he attended the Alaska Power Association's Manager's Fly-in Conference in Juneau at which he was apprised that SEAPA is a well-respected organization that legislators were looking to SEAPA for information that could assist them in funding decisions for new hydro development, but that funding was also going to be very limited. He provided updates on the

Request for Offers of Power and Energy that was advertised regionally, the Swan Lake Reservoir Expansion Project, and the Kake-Petersburg Intertie project.

Mr. Acteson reported he met with SEAPA's financial advisor, Allen Dashen, on February 15th and discussed the bond indenture and options for call and redemption dates of the bonds. He advised that he requested that Mr. Dashen give a presentation at the next board meeting to provide information on SEAPA's bond indenture. He noted he also requested John Heberling to present an update of SEAPA's 4R Plan at the next board meeting, to provide a financial perspective on the importance of having reserves for SEAPA's uninsured assets.

Mr. Acteson closed his report recommending that additional staff be considered for the Agency for records management, grant administration, project management, and technical support. He voiced his concern that the long hours and weekends currently being worked by staff may impact employee retention and that additional staff would serve to enhance the Agency's functions. Mr. Acteson advised he would bring a staffing proposal to the next board meeting.

The meeting recessed at 3:11 p.m. and resumed at 3:29 p.m.

9) A. Operations Manager Report (Steve Henson)

Mr. Henson distributed a summary of a meeting he attended with the Federal Energy Regulatory Commission (FERC) in Portland on February 21st and prior to commencing his report, took an opportunity to clarify some matters discussed earlier in the meeting. He discussed the FERC meeting and noted the importance of compliance with FERC. He provided an update of major projects, including the Wrangell Reactor, Wrangell Reactor Switching Study, STI helipads, and SEAPA's annual transmission line maintenance contract noting that only one bid had been received from Chatham Electric, Inc. who has been the contractor attending to SEAPA's lines for the past few years, and that he recommends award of the new contract to them.

Mr. Henson advised that battery replacement at Burnett Peak would commence when weather permits, and that a contract was awarded to Oasis Environmental for engineering and consulting services to update and certify SEAPA's Spill Prevention, Control and Countermeasures (SPCC) Plans for Tyee and Swan Lake. He advised that the 2009 Hitachi Excavator for Swan Lake had been purchased and arrangements were being made for shipment of the equipment to Swan Lake.

Mr. Henson reported a sloughing bank near the outside set of anchors on Tower Structure 76-1M on Mitkof Island required evaluation for stabilization of the bank to assure there was no immediate danger to the tower structure. After examination it was determined that stabilization of the slope would be more cost-effective than installation of the anchors.

Mr. Henson advised he would be working on an application to the U.S. Forest Service for a permit for an Argo vehicle utilized by TBPA's brush clearing crew to travel on state lands controlled by the USFS to access tower structures for clearing, which is much more cost effective than using helicopters to access the lines and saves time if the crew has to travel on foot for access to the structures.

The meeting recessed at 4:09 p.m. and reconvened at 4:22 p.m.

9) B. Director of Special Projects Report (Eric Wolfe, P.E.)

Mr. Wolfe opened with a slide show explaining the interaction and coordination that is required for distribution and scheduling of SEAPA's power to the member utilities under the Power Sales Agreement(PSA) and explained SEAPA's role and the products SEAPA provides bundled into the 6.8 cent wholesale power rate (WPR), which include system stability, frequency support, voltage support, scheduling, load following, and energy, noting SEAPA has to be the control area coordinator but only gets paid for energy. He explained how the PSA is tailored for the three communities and that if it were not in place, the gaps would be filled in by diesel.

Mr. Wolfe discussed the Tyee Outlet Stream Gage Project and pointed out the benefits of moving forward with the project including increased generation and fulfilling compliance with FERC's license requirement for the hydrologic data collection. He explained that what is required for the project is removal of a portion of the logjam at the outlet of Tyee Lake, installation of a log boom, clearing for a helicopter pad and emergency shelter, and a helicopter pad footing and anchor construction. He advised he would be working with FERC, the USGS, and DNR for permitting requirements for the project.

Mr. Wolfe provided an update on the spare winding project advising that it is on schedule with delivery expected by mid-May and that Tyee gate controls may be accomplished in April in coordination with other jobs requiring use of a helicopter in the intake.

Mr. Wolfe reported that a meeting with the various Agencies, including the U.S. Forest Service, Fish & Game, Department of Natural Resources, and the U.S. Fish & Wildlife Service on February 27th for the Swan Lake Reservoir Expansion Project went very well paving a path to move forward with the Initial Consultation Document filing with FERC in April.

Mr. Wolfe presented slides on the Tyee Cooling Water Project showing how energy is currently wasted because we're presently taking water from the penstock to cool the generator and explained that the project he would like to move forward with would take the cooling water after it has been used to generate electricity, for a value of approximately 1,000 MWh of additional dedicated power. He explained the project cost and that if a contract were issued by mid-June that conversion could be complete before next year's winter high generation cycle.

10) Project Reports

Paul Southland, General Manager of the Thomas Bay Power Authority, distributed a report on the Tyee project and explained the circumstances leading up to the necessity of SEAPA seeking a permit from the USFS for the ARGO vehicle to access state lands controlled by the USFS. He reported that the clearing crew was on Vank Island and not being able to use the ARGO vehicle meant a significant amount of time on the second stretch of their ten-day rotation walking to the area that needed clearing. He expressed his appreciation for the efforts involved in moving forward with the ARGO permitting process.

Mr. Southland apprised the board of a monitoring issue with the submarine cables. He explainedthat after an upper alarm sounded at two different sites, the submarine cable consultant, Jim Pachot of Poseidon Engineering and Steve Henson were consulted. They determined that the settings on the gages creep because at certain depths, colder sea water temperatures affect the pressures on the submarine cables requiring calibration of the analog gages to lower settings. After the Poseidon Engineering consultant checked the gages and found the settings creep, he recommended that all 36 of the submarine cable gages be replaced, which will be a significant dollar item. He noted it had also been recommended by Mr. Henson that transducers be placed to monitor the actual pressure on the submarine cables and that he was looking forward to a proposal to move the alarming to the Tyee facility or incorporate it into the SCADA system since currently monitoring only occurs once a day from the Wrangell location.

Mr. Southland closed his report advising that Thomas Bay would be entering into contract negotiations with IBEW at the end of the month. Discussion followed on the PERS retirement obligations and the status of TBPA's posting for the general manager's position

Andy Donato, Electric System Manager/Engineer for Ketchikan Public Utilities, distributed an update on the Swan Lake project and opened with a followup of four earthquake events that occurred and confirmed there were two surveys conducted by R&M Engineering following two of the events that required reporting to FERC. He covered safety training that had taken place at the facility and an Emergency Action Plan (EAP) exercise. He reported on an outage that was determined to be a forced outage although no customers were affected because of a lower guide bearing on Unit 2, which was resolved with the assistance of consultant, Morris Kepler, to replace the bearing.

Mr. Donato advised that a seepage pin survey could not be completed because a boat is required for access to conduct the survey, and the lake was frozen precluding use of the boat. He provided an overview of regular and periodic maintenance items and discussed an upgrade to the satellite link at Swan.

The meeting recessed at 5:55 p.m. on March 5, 2013.

The meeting reconvened at 8:37 a.m. on March 6, 2013.

The meeting opened with a call of the roll. All board members with the exception of Mr. Rhodes and Mr. Jensen were present. All SEAPA staff and SEAPA's counsel, Mr. Paisner, were also present.

11) Old Business

The ongoing issue of diesel protocol was discussed at length however no action was taken. There was a consensus that the existing documents and draft resolution already prepared on the issue be reviewed to determine whether a committee should be formed and information shared to move the issue forward.

Mr. Paisner discussed SEAPA's obligations to the Open Meetings Act (OMA) and disclosure of public records. He advised that while SEAPA is obligated to comply with the OMA it has neither agreed to nor been bound by the public records statutes under Alaska's law. He explained that the statutes that SEAPA is organized under, and one of SEAPA's governing documents, the Joint Action Agency Agreement (JAA),is specific that SEAPA is a public agency for only one purpose and that is to exercise the right of eminent domain condemnation. Except for that the Agency is not a public agency. This statutory rule distinguishes SEAPA from other state agencies.

Discussion followed on how the board has dealt and will deal with public records requests. It was noted that SEAPA had posted its governing documents, board packets, and agendas on its website for public review. Reporters requested clarification on what documents they could and could not request, with the consensus that information is available during SEAPA's public meetings, and that development of a process for public disclosure of documents may be an ongoing process.

Mr. Acteson discussed SEAPA's iPad policy advising that a previous board member asked whether he could purchase the iPad he was given to use during his tenure on the board. After discussion, it was determined that staff would come back with a revision to SEAPA's existing iPad policy providing an opportunity for buyout of the equipment, appointing SEAPA as the depository and distributor for any returned iPads, and also be responsible for purchasing any new iPads as needed.

The meeting recessed at 9:35 a.m. and reconvened at 9:50 a.m.

Mr. Acteson provided an overview of a mission statement that had been developed for consideration by the board and reiterated the importance of having one to enhance the communities' knowledge of the agency and explain SEAPA's role in the region.

Mr. Coose moved to adopt the following as SEAPA's mission statement: "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 system."Mr. Bergeron seconded the motion. Considerable discussion followed on verbiage that should be included and excluded in the statement. **The motion passed four to one with Mr. Nelson, Mr. Sivertsen, Mr. Bergeron and Mr. Coose voting in favor of the motion and Mr. Ashton voting no.** (Action 13-198)

12) New Business

Mr. Sivertsen opened discussion on SEAPA's adoption of a draft of a conflict of interest policy provided in the board packet and discussed circumstances that could lead to a conflict of interest requiring disclosure by a board member of a conflict. Mr. Paisner contributed additional insight on the issue.

Mr. Bergeron moved to adopt the conflict of interest policy presented by SEAPA's counsel. Mr. Coose seconded the motion. Chairman Sivertsen requested staff to include a conflict of interest question on each agenda going forward for future board meetings. **The motion carried unanimously.** (Action 13-199)

Mr. Coose moved to authorize staff to enter into a contract with Chatham Electric, Inc. for an amount not to exceed $1,654,740.00 for SEAPA's 2013-2015 Annual Transmission Line Contract for the Swan Lake, Tyee Lake, and Swan-Tyee Intertie Transmission Lines. Mr. Nelson seconded the motion. The motion carried unanimously. (Action 13-200)

Mr. Coose moved to authorize staff to contract with Chatham Electric, Inc. for a value not to exceed $292,750.00 for replacement and realignment of four poles on the transmission line, including underbuild, at the Heritage Harbor area in Wrangell, Alaska and for one pole replacement in Petersburg. Mr. Bergeron seconded the motion. The motion carried unanimously. (Action 13-201)

Mr. Bergeron moved to approve funding of $154,187 for R&R Project No. 240-13 for the Tyee Cooling Water Conversion Project and authorize staff to develop a request for proposals for the mechanical work. Mr. Coose seconded the motion. The motion carried unanimously. (Action 13-202)

Mr. Bergeron moved to approve a total capital budget of $1,467,758 for the Tyee Outlet Stream Gage Project and authorize staff to develop two requests for proposals. The first proposal is for a logging contract to remove logs, build a log boom, helicopter pad, walkway, and small emergency shelter building. The second proposal is for construction of an outlet stream gage. Each proposal will have tasks from the other proposal as options. Mr. Nelson seconded the motion. The motion carried unanimously. (Action 13-203)

Mr. Donato requested a brief update of the SCADA project. Mr. Wolfe explained that an RFP would be issued for the work and anticipated that the work would be done by June 2014. Discussion followed on the philosophy of SCADA, which Mr. Wolfe explained was redundancy and how the current process of failures and response and response work, acknowledging that you donot have to have everybody at the site at the same time.

The meeting recessed at 11:13 a.m. and reconvened at 11:30 a.m.

Mr. Sivertsen opened the meeting for any discussion that board members wanted during the Workshop session schedule in the agenda. He noted that a wealth of information had already been provided that may have resolved many of the questions and concerns the board may have had. Several board members reiterated topics already discussed expressing appreciation for the collaboration that had taken place during the meeting to resolve the more difficult issues.

Mr. Nelson requested staff to provide an update on any progress in the area of energy storage besides the Swan Lake Reservoir Expansion Project for the next board meeting.

13) Director Comments

Directors commented during the Workshop Session of the agenda.

14) Adjourn

Mr. Coose moved to adjourn the meeting. Mr. Ashton seconded the motion. There was no opposition to the motion. (Action 13-204)

Signed:	Attest:
______________________________	______________________________
Secretary/Treasurer	Chairman

DATE: April 15, 2013

TO: Trey Acteson

FROM: Kay Key

SUBJECT: Financial Reports

Financial reports included in the April 25 board packet are as follows:

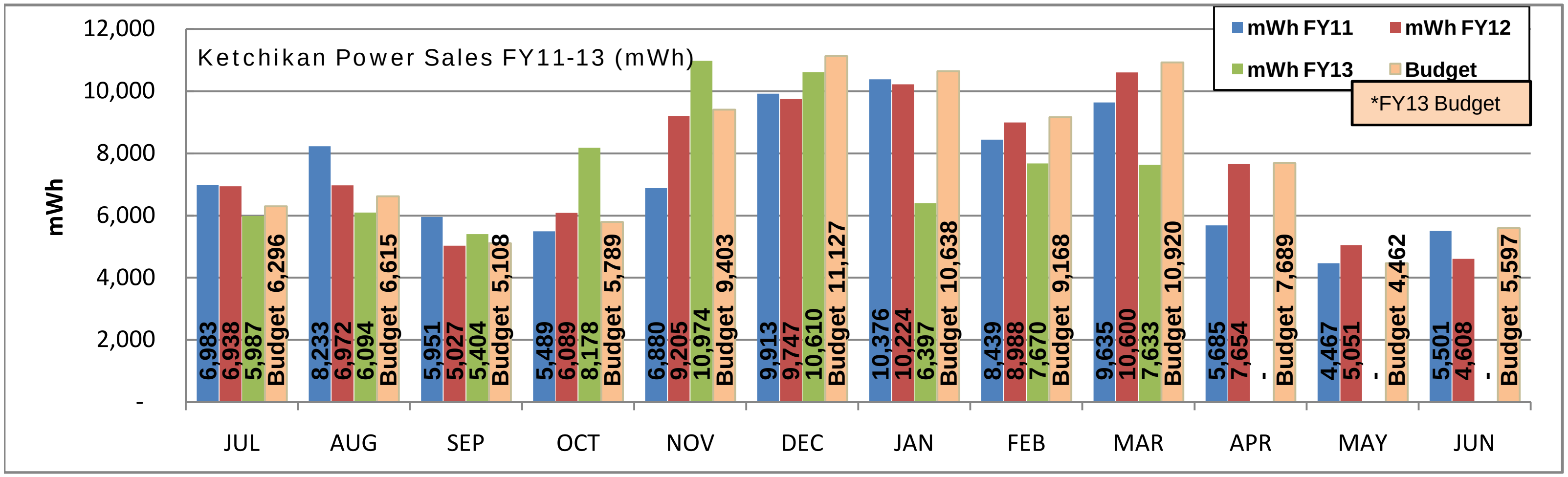
- **kWh Graph - YTD** (through March, 2013)
- **Monthly Financial Reports for January and February, 2013**:
  - ✓ Cover Memo
  - ✓ Fund Allocation Graph
  - ✓ Statement of Financial Position – Summary
  - ✓ Statement of Activities – Summary
  - ✓ Statement of Financial Position – Detail
  - ✓ Statement of Activities – Budget Comparison
- **Grant Summary** (through February, 2013)
- **Project Feasibility** (through February, 2013)
- **R&R Reports** (through February, 2013)
  - ✓ R&R Summary
  - ✓ R&R Detail
  - ✓ Closed R&Rs
- **Disbursement Summary – March**

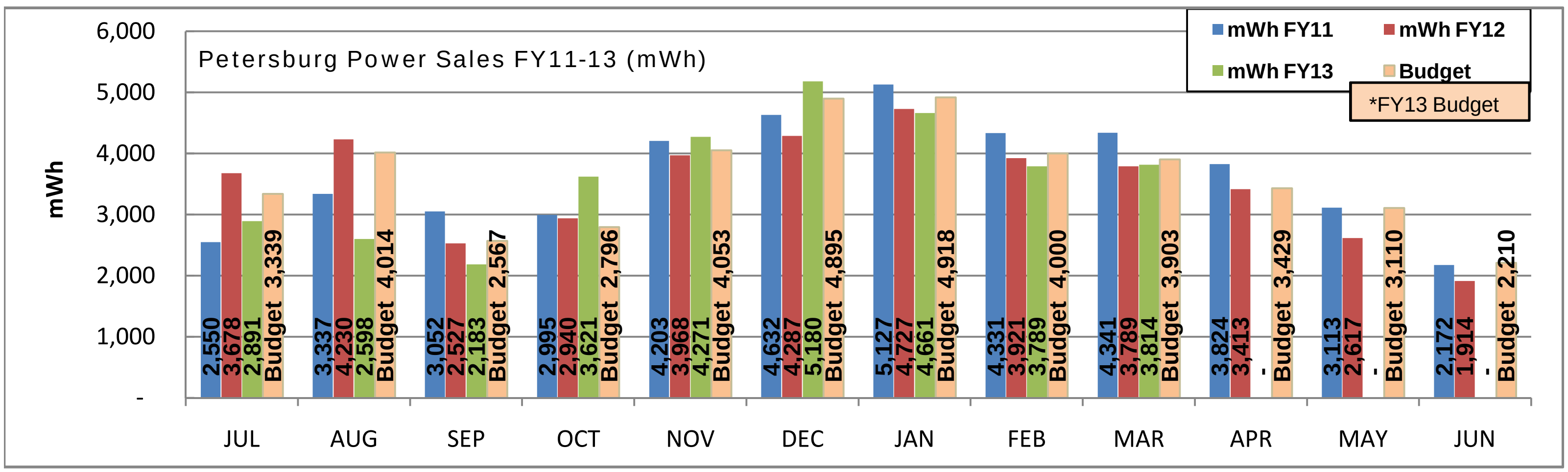
RECOMMENDED MOTION
I move to approve financial statements for the months of January and February 2013.

SOUTHEAST ALASKA POWER AGENCY

Power Sales - FY11 through FY13

MAR 2013	FY13 kWh Hydropower Sales	Current Month Actual	Current Month Budget	Year-To-Date Actual	Year-To-Date Budget
	Ketchikan Power Purchases	7,633,000	10,920,000	68,947,000	75,064,000
	Petersburg Power Purchases	3,814,070	3,903,000	33,008,950	34,485,000
	Wrangell Power Purchases	3,604,350	3,477,000	29,987,360	30,125,000
	Total Power Purchases	15,051,420	18,300,000	131,943,310	139,674,000





SOUTHEAST ALASKA POWER AGENCY
Power Sales - FY11 through FY13

MAR 2013

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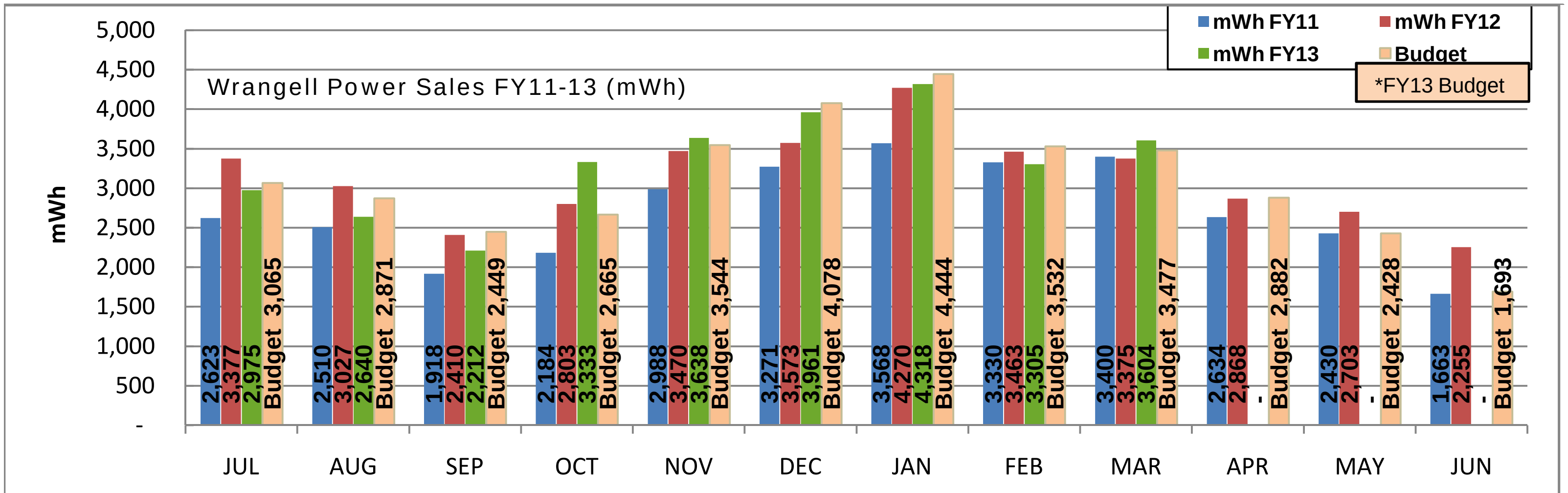

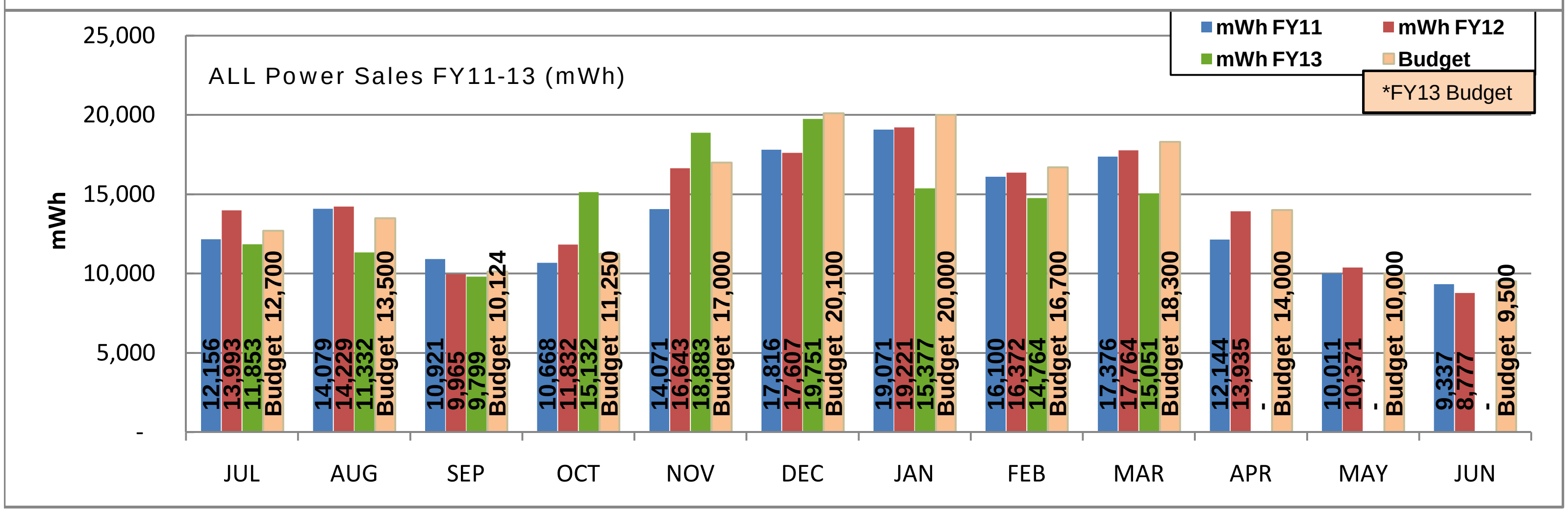

SOUTHEAST ALASKA POWER AGENCY
Power Sales - FY11 through FY13

MAR 2013		Current Month		Year-To-Date	
	FY13 kWh Hydropower Sales	Actual	Budget	Actual	Budget
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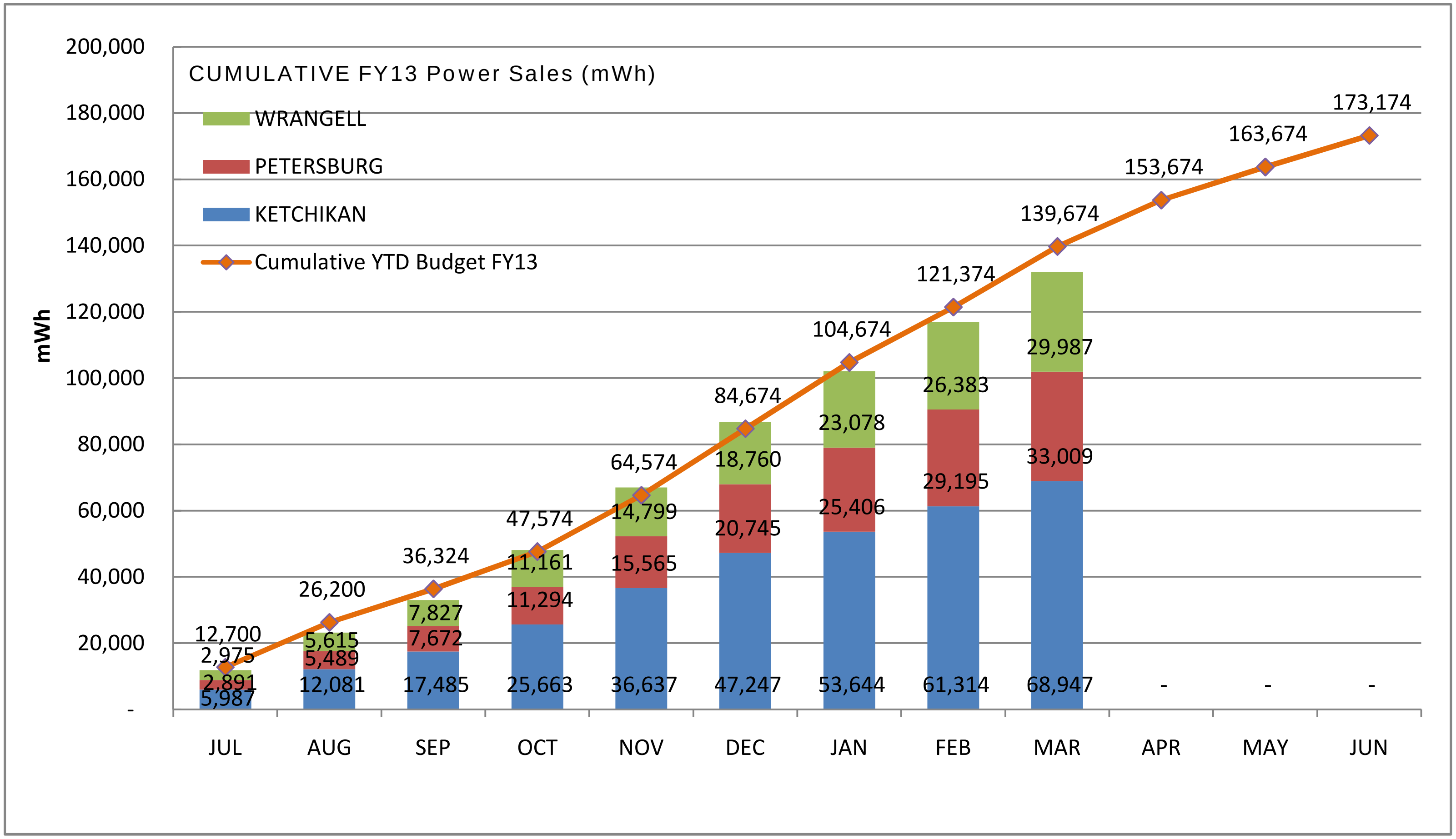


DATE: March 21, 2013

TO: SEAPA Board of Directors

FROM: Trey Acteson

SUBJECT: Financial Reports – January, 2013

Financial reports for January, 2013 follow this memo. The following are a few brief highlights:

- January, 2013 revenues from kWh sales were under budget:
  $1,045,620 actual vs. $1,360,000 budget.
  - Ketchikan - $434,996 actual vs. $723,384 budget
  - Petersburg - $316,977 actual vs. $334,424 budget
  - Wrangell - $293,647 actual vs. $302,192 budget

- Year-to-date (July – Jan) revenues from kWh sales were also lower than budget:
  $6,944,712 actual vs. $7,117,832 budget.
  - Ketchikan - $3,647,792 actual vs. $3,738,368 budget
  - Petersburg - $1,727,606 actual vs. $1,807,576 budget
  - Wrangell - $1,569,314 actual vs. $1,571,888 budget

- January, 2013 sales in kWh – 15,376,770 vs.
  January, 2012 sales in kWh – 19,221,000 and
  January, 2011 sales in kWh – 19,071,000

- Year-to-date (July – January, 2013) sales in kWh – 102,128,120 vs.
  Year-to-date (July – January, 2012) sales in kWh – 103,489,530 and
  Year-to-date (July – January, 2011) sales in kWh – 98,782,610

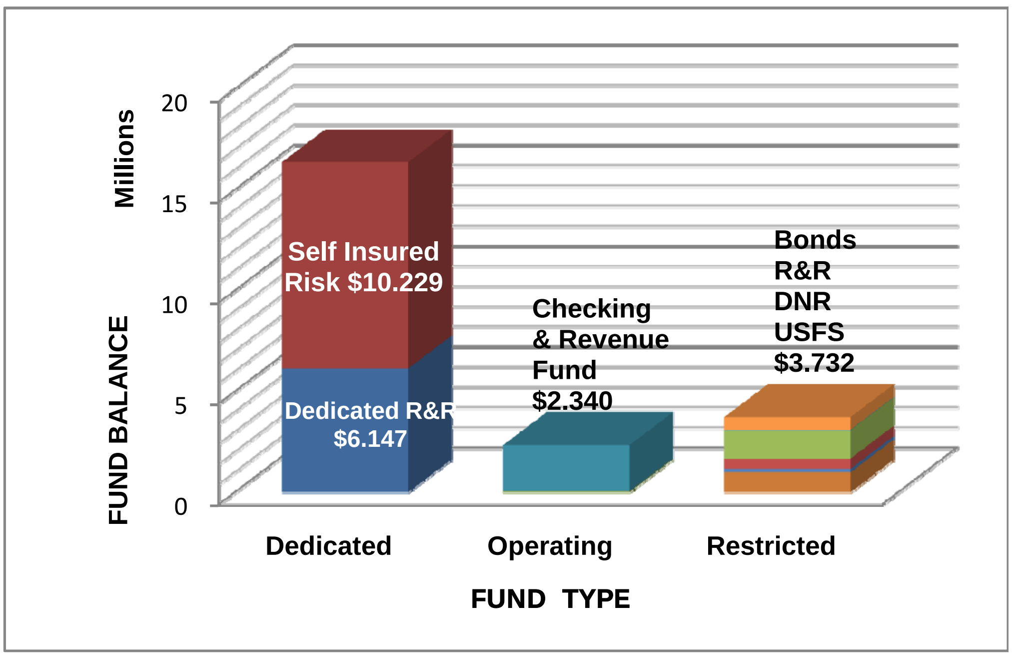
- Administrative and operating expenses for January, 2013 were under budget:
  $378,672 actual vs. $531,449 budget.

- Year-to-date administrative and operating expenses (July – January) were under budget:
  $2,901,304 actual vs. $3,903,935 budget.

As always, feel free to ask any questions concerning the financials.

SOUTHEAST ALASKA POWER AGENCY
Fund Allocation Graph
As of January 31, 2013

	01/31/13
ASSETS	
Current Assets	
Agency Funds	
111000 · Ops/Capital/Insurance Funds	
111100 · Revenue Fund FB	2,285,447
111200 · Required R&R Fund FB	1,000,361
111210 · Dedicated R&R Projects Fund FB	6,146,773
111300 · Commercial FB	54,566
111400 · Subordinate Debt Fund FB	309
111500 · Self Insured Risk Fund FNBA	10,228,590
Total 111000 · Ops/Capital/Insurance Funds	19,716,046
112000 · Trustee Funds	
112100 · WF Trust Bond Interest	170,235
112200 · WF Trust Bond Principal	506,278
112300 · WF Trust Bond Reserve	1,406,571
112400 · WF Refund 2004AB Escrow	2
Total 112000 · Trustee Funds	2,083,086
113000 · Restricted Funds	
113100 · STI - USFS CD WF	21,602
113500 · DNR Reclamation Fund WF	627,238
Total 113000 · Restricted Funds	648,841
Total Agency Funds	22,447,972



Dedicated Funds

Self-Insured Risk Fund = Coverage for uninsured transmission lines, submarine cables and insurance deductibles

Dedicated R&R = Funding for board-approved Renewal & Replacement projects

Operating Funds

Checking & Revenue Fund

Restricted Funds (Legally or contractually restricted)

Bonds = 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
Statement of Financial Position - Summary
As of January 31, 2013

	Jan 31, 13
ASSETS	
Current Assets	
Agency Funds	
111000 · Ops/Capital/Insurance Funds	19,716,046
112000 · Trustee Funds	2,083,086
113000 · Restricted Funds	648,841
Total Agency Funds	22,447,973
Accounts Receivable	
110000 · Accounts Receivable	1,793,390
110100 · Grants Receivable	5,961
Total Accounts Receivable	1,799,351
Other Current Assets	
120000 · Other Current Assets	459,891
Total Other Current Assets	459,891
Total Current Assets	24,707,215
Fixed Assets	
130000 · Fixed Assets	132,455,003
Total Fixed Assets	132,455,003
Other Assets	
133000 · Other Assets	718,475
Total Other Assets	718,475
TOTAL ASSETS	**157,880,693**
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
210100 · Accounts Payable General	437,720
Total Accounts Payable	437,720
Other Current Liabilities	
210150 · Other Current Liabilities	229,357
210300 · Reserve Interest Payable	111,667
210400 · Wages Payable	43,354
210500 · Payroll Liabilities	1,372
Total Other Current Liabilities	385,750
Total Current Liabilities	823,470
Long Term Liabilities	
220000 · Long Term Liabilities	14,656,001
Total Long Term Liabilities	14,656,001
Total Liabilities	15,479,471
Equity	
310000 · Equity	133,661,640
32000 · Unrestricted Net Assets	7,404,056
Net Income	1,335,524
Total Equity	142,401,220
TOTAL LIABILITIES & EQUITY	**157,880,691**

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Summary
January 2013

	Jan 13
Ordinary Income/Expense	
Income	
410000 · Hydro Facility Revenues	1,045,620
Total Income	1,045,620
Expense	
535000 · Hyd/Op-Sup & Engineering	16,356
539000 · Misc Power Generation Expense	41,840
540000 · Rents	13,409
542000 · Hydro Structure Maintenance	15,367
543000 · Dams, Reservoirs & Waterways	777
544000 · Maintenance of Electric Plant	60,812
545000 · Plant Miscellaneous Maintenance	19,138
560000 · Trans Sys Operation Sup & Eng	2,631
561000 · Trans/SCADA Load Dispatch	1,677
562000 · Trans/Operations Station Exp	4,110
564000 · Trans/Submarine Cable Expense	5,845
571000 · Trans/Maint - Overhead Lines	13,578
920000 · Administrative Expenses	79,022
921000 · Office Expenses	11,174
922000 · Legislative Affairs	143
923000 · Contract Services	18,492
924000 · Insurance	41,087
928000 · Regulatory Commission Expense	7,578
930000 · General Expenses	16,262
931000 · Office Rent	7,923
931100 · Apartment Rent - Ketchikan	1,450
Total Expense	378,671
Net Ordinary Income	666,949
Other Income/Expense	
Other Income	
941000 · Grant Income	2,267
942000 · Interest Income	13,025
945000 · Unrealized Gain/Loss	(8,891)
Total Other Income	6,401
Other Expense	
951000 · Amortization Expense	3,518
952000 · Bond Interest 2009 Series	57,340
953000 · Depreciation Expense	324,908
954000 · Grant Expenses	40,295
Total Other Expense	426,061
Net Other Income	(419,660)
Net Income	**247,289**

SOUTHEAST ALASKA POWER AGENCY
Statement of Financial Position - Detail
As of January 31, 2013

	Jan 31, 13
ASSETS	
Current Assets	
Agency Funds	
111000 · Ops/Capital/Insurance Funds	
111100 · Revenue Fund FB	2,285,447
111200 · Required R&R Fund FB	1,000,361
111210 · Dedicated R&R Projects Fund FB	6,146,773
111300 · Commercial FB	54,566
111400 · Subordinate Debt Fund FB	309
111500 · Self Insured Risk Fund FNBA	10,228,590
Total 111000 · Ops/Capital/Insurance Funds	19,716,046
112000 · Trustee Funds	
112100 · WF Trust Bond Interest	170,235
112200 · WF Trust Bond Principal	506,278
112300 · WF Trust Bond Reserve	1,406,571
112400 · WF Refund 2004AB Escrow	2
Total 112000 · Trustee Funds	2,083,086
113000 · Restricted Funds	
113100 · STI - USFS CD WF	21,602
113500 · DNR Reclamation Fund WF	627,238
Total 113000 · Restricted Funds	648,840
Total Agency Funds	22,447,972
Accounts Receivable	
110000 · Accounts Receivable	1,793,390
110100 · Grants Receivable	5,961
Total Accounts Receivable	1,799,351
Other Current Assets	
120000 · Other Current Assets	
120200 · Other Receivables	4,176
120300 · Accrued Interest Receivable	29,611
120500 · Prepaid Fees	
120520 · Prepaid Insurance	240,520
120540 · Prepaid USDA FS Land Use Fees	70,492
120550 · Prepaid Admin Expense	106,950
Total 120500 · Prepaid Fees	417,962
120700 · Inventory Assets	
120701 · Inventory - Wood Poles	8,143
Total 120700 · Inventory Assets	8,143
Total 120000 · Other Current Assets	459,892
Total Other Current Assets	459,892
Total Current Assets	24,707,215

SOUTHEAST ALASKA POWER AGENCY
Statement of Financial Position - Detail
As of January 31, 2013

	Jan 31, 13
Fixed Assets	
130000 · Fixed Assets	
130100 · Capital Assets	
130110 · Swan Lake	16,018,330
130120 · Tyee Lake	25,960,484
130130 · SEAPA Office	629,330
Total 130100 · Capital Assets	42,608,144
132100 · Swan Tyee Intertie in Operation	111,381,868
132200 · R&R Projects WIP Capital Improv	
132210 · R&R Projects - WIP Swan Lake	373,784
132220 · R&R Projects - WIP Tyee Lake	155,616
132230 · R&R Projects - WIP STI-Transmsn	122,500
132240 · R&R Projects - WIP SEAPA Office	58,629
Total 132200 · R&R Projects WIP Capital Improv	710,529
132900 · Accumulated Depreciation	(22,245,538)
Total 130000 · Fixed Assets	132,455,003
Total Fixed Assets	132,455,003
Other Assets	
133000 · Other Assets	
133100 · Accumulated Amortization	
133110 · Amortization	(217,162)
Total 133100 · Accumulated Amortization	(217,162)
133200 · Bond Fees	
133210 · Origination Fees	444,906
133220 · Cost of Issuance Fees	52,000
Total 133200 · Bond Fees	496,906
183000 · Deferred Assets	
183100 · Swan Lake Increased Storage	426,695
183200 · Tyee Stream Gauge	12,037
Total 183000 · Deferred Assets	438,732
Total 133000 · Other Assets	718,476
Total Other Assets	718,476
TOTAL ASSETS	**157,880,694**

SOUTHEAST ALASKA POWER AGENCY
Statement of Financial Position - Detail
As of January 31, 2013

	Jan 31, 13
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
210100 · Accounts Payable General	437,720
Total Accounts Payable	437,720
Other Current Liabilities	
210150 · Other Current Liabilities	229,357
210300 · Reserve Interest Payable	111,667
210400 · Wages Payable	43,354
210500 · Payroll Liabilities	
210530 · SUI Tax Payable	1,372
Total 210500 · Payroll Liabilities	1,372
Total Other Current Liabilities	385,750
Total Current Liabilities	823,470
Long Term Liabilities	
220000 · Long Term Liabilities	
220100 · Series B Bonds 2009	14,775,000
220110 · Bond Issuance Premium	17,958
220120 · Bond Discount	(136,956)
Total 220000 · Long Term Liabilities	14,656,002
Total Long Term Liabilities	14,656,002
Total Liabilities	15,479,472
Equity	
310000 · Equity	
310100 · STI Net Assets	106,354,593
310300 · Retained Earnings	27,307,048
Total 310000 · Equity	133,661,641
32000 · Unrestricted Net Assets	7,404,056
Net Income	1,335,524
Total Equity	142,401,221
TOTAL LIABILITIES & EQUITY	**157,880,693**

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Budget Comparison Detail
January 2013

	Jan 13	Budget	Jul '12 - Jan 13	YTD Budget	Annual Budget
Ordinary Income/Expense					
Income					
410000 · Hydro Facility Revenues					
410100 · Ketchikan Power Purchases	434,996	723,384	3,647,792	3,738,368	6,311,216
410200 · Petersburg Power Purchases	316,977	334,424	1,727,606	1,807,576	2,939,912
410300 · Wrangell Power Purchases	293,647	302,192	1,569,314	1,571,888	2,524,704
Total 410000 · Hydro Facility Revenues	1,045,620	1,360,000	6,944,712	7,117,832	11,775,832
Total Income	1,045,620	1,360,000	6,944,712	7,117,832	11,775,832
Expense					
535000 · Hyd/Op-Sup & Engineering					
535100 · Hyd/Op Sup & Eng - Swan Lake	3,391	8,675	31,574	60,725	104,150
535200 · Hyd/Op Sup & Eng - Tyee Lake	10,986	12,000	68,488	84,000	144,700
535300 · Hyd/Op Sup & Eng - Admin	0	4,100	280	28,700	50,000
535400 · Hyd/Op Sup & Eng - Proj Drawing	0	20,000	2,159	100,000	200,000
535700 · Hyd/Op Sup & Eng - 4R Plan	1,980		36,497	50,000	50,000
535800 · Hyd/Op Sup & Eng-Operatn Review	0	16,500	45,462	115,500	200,000
Total 535000 · Hyd/Op-Sup & Engineering	16,357	61,275	184,460	438,925	748,850
537000 · Hydraulic Expenses					
537100 · Hydraulic Expense - Swan Lake	0	480	(3)	3,350	5,750
537200 · Hydraulic Expense - Tyee Lake	0	85	0	575	1,000
537300 · Hydraulic Expense - MAPCON Adm	0	800	4,390	5,600	10,000
537400 · Hydraulic Expense - Engineering	0	400	0	2,800	5,000
Total 537000 · Hydraulic Expenses	0	1,765	4,387	12,325	21,750
538000 · Electric Expenses					
538100 · Electric Expense - Swan Lake	0	190	927	1,300	2,250
538200 · Electric Expense - Tyee Lake	0	270	10,747	1,900	3,250
538300 · Electric Exp - Engineer/Consult	0	2,000	0	15,000	25,000
538400 · Electric Exp - Governor Support	0	85	0	575	1,000
Total 538000 · Electric Expenses	0	2,545	11,674	18,775	31,500
539000 · Misc Power Generation Expense					
539100 · Misc Exp - Swan Lake	0	6,500	26,637	45,500	78,520
539200 · Misc Expense - Tyee Lake	31,145	20,170	169,840	141,190	242,100
539300 · Misc Expense - Annual Inspectns	964	1,700	15,568	11,900	20,500
539310 · Fuel & Delivery	0		7,638		
539400 · Misc Expense - Permits & Maps	900		900		
539500 · Misc Expense - Communications	8,831	12,120	102,000	84,840	145,500
Total 539000 · Misc Power Generation Expense	41,840	40,490	322,583	283,430	486,620

Statement of Activities - Budget Comparison Detail

January 2013

	Jan 13	Budget	Jul '12 - Jan 13	YTD Budget	Annual Budget
540000 · Rents					
540300 · FERC Land Use Fee - Swan Lake	3,667	3,660	19,703	25,700	44,000
540400 · FERC Land Use Fee - Tyee Lake	3,334	3,300	17,724	23,500	40,000
540500 · USDA Land Use Fee - USFS ROW	1,541	1,650	10,616	11,750	20,000
540600 · USDA Land Use Fee - STI	4,720	5,000	32,514	35,000	60,000
540700 · USDA Tyee Passive Reflector	103	110	714	800	1,350
540710 · USDA Etolin Burnett Radio	43	50	301	400	650
Total 540000 · Rents	13,408	13,770	81,572	97,150	166,000
541000 · Hydro Power Station Maintenance					
541100 · Maint/Supervision - Swan Lake	0		(5)		
541300 · Maint/Sup - Operator Training	0	2,500	1,654	17,500	30,000
541400 · Maint/Sup - Reliability Mgmt	0	6,000	153	42,000	72,000
541500 · Maint/Sup - Engineering Service	0	5,800	27,566	41,000	70,000
Total 541000 · Hydro Power Station Maintenance	0	14,300	29,368	100,500	172,000
542000 · Hydro Structure Maintenance					
542100 · Hyd Structure Maint - Swan Lake	15,367	5,700	95,329	40,400	68,900
Total 542000 · Hydro Structure Maintenance	15,367	5,700	95,329	40,400	68,900
543000 · Dams, Reservoirs & Waterways					
543100 · Dams Res & Waterwys - Swan Lake	0	1,500	36,872	10,500	18,800
543200 · Dams Res & Waterwys - Tyee Lake	0	650	5,348	4,550	8,000
543300 · Dams Res & Wtrwys - Dam Surveys	777	210	2,902	1,450	2,500
543410 · Dams Res & Waterwys-DSSMR-SL	0	830	0	5,850	10,000
Total 543000 · Dams, Reservoirs & Waterways	777	3,190	45,122	22,350	39,300
544000 · Maintenance of Electric Plant					
544100 · Maint Electric Plant-Swan Lake	11,144	23,100	96,921	161,700	277,350
544200 · Maint Electric Plant-Tyee Lake	49,668	55,450	337,770	388,150	665,800
544300 · Maint Electric Plant-Engineerng	0	4,150	2,881	29,250	50,000
Total 544000 · Maintenance of Electric Plant	60,812	82,700	437,572	579,100	993,150
545000 · Plant Miscellaneous Maintenance					
545100 · Plant Misc Maint - Swan Lake	19,083	20,900	118,985	146,200	250,700
545200 · Plant Misc Maint - Tyee Lake	55	1,150	1,888	8,050	13,900
545300 · Plant M/M - USGS Stream Gauging	0	1,000	20,054	50,000	55,000
545400 · Plant Misc Maint - ADF&G	0	1,650	0	11,750	20,000
Total 545000 · Plant Miscellaneous Maintenance	19,138	24,700	140,927	216,000	339,600

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Budget Comparison Detail
January 2013

	Jan 13	Budget	Jul '12 - Jan 13	YTD Budget	Annual Budget
560000 · Trans Sys Operation Sup & Eng					
560200 · Sys Ops Sup & Eng - Tyee Lake	1,191	1,200	3,854	8,400	14,600
560300 · Sys Ops Sup & Eng-Enginr/Conslt	1,440	7,900	19,248	55,500	95,000
Total 560000 · Trans Sys Operation Sup & Eng	2,631	9,100	23,102	63,900	109,600
561000 · Trans/SCADA Load Dispatch					
561200 · SCADA Load Dispatch - Tyee Lake	1,677	580	6,477	4,060	7,000
Total 561000 · Trans/SCADA Load Dispatch	1,677	580	6,477	4,060	7,000
562000 · Trans/Operations Station Exp					
562100 · Trans/Op Station Ex - Swan Lake	0	1,250	318	8,750	15,000
562200 · Trans/Op Station Ex - Tyee Lake	4,110	2,550	14,920	17,850	30,650
562300 · Trans/Op - Contract Services	0	10,400	24,713	72,800	125,000
Total 562000 · Trans/Operations Station Exp	4,110	14,200	39,951	99,400	170,650
564000 · Trans/Submarine Cable Expense					
564200 · Trans/Sub Cable Exp - Tyee Lake	5,845	400	6,100	2,800	4,825
564300 · Trans/Sub Cable-Engineerng Serv	0	2,500	0	17,500	30,000
Total 564000 · Trans/Submarine Cable Expense	5,845	2,900	6,100	20,300	34,825
571000 · Trans/Maint - Overhead Lines					
571100 · Trans/Maint-OH Lines- Swan Lake	0	1,200	3	8,400	14,700
571200 · Trans/Maint-OH Lines-Tyee Lake	1,813	19,100	105,239	133,700	229,600
571300 · Trans/Maint - T-Line Maint Cont	11,765	37,500	81,272	262,500	450,000
571600 · Trans/Maint OH-Spare Mat Stor	0	0	350	500	500
571700 · Trans/Maint OH STI Clearing	0	1,000	0	55,000	100,000
571800 · Trans/Maint OHL System Events	0	15,000	30,498	75,000	150,000
Total 571000 · Trans/Maint - Overhead Lines	13,578	73,800	217,362	535,100	944,800
920000 · Administrative Expenses					
920100 · Administrative	79,022	75,680	516,450	528,700	907,100
920200 · Contract Staff	0		47,200	48,750	48,750
Total 920000 · Administrative Expenses	79,022	75,680	563,650	577,450	955,850
921000 · Office Expenses					
921100 · Office Supplies	946	1,700	6,303	12,000	20,500
921200 · Office Equipment	6,340	1,000	19,284	10,000	15,000
921300 · Phone, Courier, Internet	1,714	1,850	11,510	12,950	22,700
921400 · System Networking	2,174	2,950	17,913	20,600	35,350
921600 · Vehicle Expenses	0	200	320	1,400	2,500
Total 921000 · Office Expenses	11,174	7,700	55,330	56,950	96,050

Statement of Activities - Budget Comparison Detail

January 2013

	Jan 13	Budget	Jul '12 - Jan 13	YTD Budget	Annual Budget
922000 · Legislative Affairs	143	5,800	24,143	40,600	70,000
923000 · Contract Services					
923200 · Annual Financial Audit	2,319	2,000	23,143	24,000	26,000
923300 · Bank & Trustee Fees	5,165	960	7,242	6,700	11,500
923400 · Insurance Consultant	0	1,250	4,485	8,750	15,000
923500 · Investment Consultant	2,116	2,210	14,791	15,450	26,500
923600 · Legal Fees	8,893	16,650	67,300	116,750	200,000
923700 · Recruitment	0		23,954	30,000	30,000
Total 923000 · Contract Services	18,493	23,070	140,915	201,650	309,000
924000 · Insurance	41,087	47,650	282,684	333,550	571,800
928000 · Regulatory Commission Expense					
928100 · Emergency Action Plan	78	200	20,873	1,500	2,500
928200 · FERC Filings	0	84	0	580	1,000
928300 · FERC Administrative Fees	7,500	7,500	46,570	52,500	90,000
Total 928000 · Regulatory Commission Expense	7,578	7,784	67,443	54,580	93,500
930000 · General Expenses					
930100 · Advertising Expense	2,761	290	4,384	2,050	3,500
930200 · Annual Rpt/Signage Expense	0	20	54	140	250
930300 · Association Dues Expense	5,701	2,300	24,289	16,100	27,600
930400 · Board Meeting Expenses	1,645	1,000	14,280	24,000	45,000
930500 · Training Expense	565	750	6,409	5,250	9,000
930600 · Travel Expense	5,414	2,500	26,400	17,500	30,000
930700 · Non-Travel Incidental	176	290	753	2,050	3,500
Total 930000 · General Expenses	16,262	7,150	76,569	67,090	118,850
931000 · Office Rent	7,923	4,100	33,852	29,100	49,600
931100 · Apartment Rent - Ketchikan	1,450	1,500	10,732	11,250	18,750
Total Expense	378,672	531,449	2,901,304	3,903,935	6,617,945
Net Ordinary Income	666,948	828,551	4,043,408	3,213,897	5,157,887
Other Income/Expense					
Other Income					
941000 · Grant Income	2,267		15,386		
942000 · Interest Income					
942100 · Misc Interest Income	741		14,010		
942200 · Investment Interest Income	12,284		96,715		
Total 942000 · Interest Income	13,025		110,725		

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Budget Comparison Detail
January 2013

	Jan 13	Budget	Jul '12 - Jan 13	YTD Budget	Annual Budget
944000 · Realized Gain/Loss					
944100 · Realized Gain/Loss Bonds	0		(2,349)		
944200 · Realized Gain/Loss on Invest	0		(23,304)		
Total 944000 · Realized Gain/Loss	0		(25,653)		
945000 · Unrealized Gain/Loss					
945100 · Unrealized Gain/Loss Bonds	(1,095)		(6,679)		
945200 · Unrealized Gain/Loss Investment	(7,796)		26,739		
Total 945000 · Unrealized Gain/Loss	(8,891)		20,060		
946000 · Misc Nonoperating Income					
946002 · Gain/Loss on Property Dispositn	0		16,939		
Total 946000 · Misc Nonoperating Income	0		16,939		
Total Other Income	6,401		137,457		
Other Expense					
951000 · Amortization Expense	3,518		24,626		
952000 · Bond Interest 2009 Series	57,340		401,381		
953000 · Depreciation Expense	324,908		2,274,358		
954000 · Grant Expenses					
954002 · Grant Contractual	29,925		37,016		
954004 · Grant Labor & Benefits	377		1,956		
954005 · Grant Legal	8,890		16,065		
954006 · Grant Materials & Supplies	0		2,498		
954007 · Grant Other Expense	0		221		
954008 · Grant Travel	1,103		4,470		
Total 954000 · Grant Expenses	40,295		62,226		
954100 · Contributed Capital	0		(2,250)		
955000 · Interest Expense					
955200 · Investment Interest Expense	0		0		
Total 955000 · Interest Expense	0		0		
980000 · R&R Fund Expenses					
980100 · R&R Fund - Swan Lake	0	800	537	5,600	10,000
980200 · R&R Fund - Tyee Lake	0	800	77,266	65,100	69,500
980400 · R&R Fund - Solomon Gulch PFMA	0		7,199	12,500	12,500
Total 980000 · R&R Fund Expenses	0	1,600	85,002	83,200	92,000
Total Other Expense	426,061	1,600	2,845,343	83,200	92,000
Net Other Income	(419,660)	(1,600)	(2,707,886)	(83,200)	(92,000)
Net Income	**247,288**	**826,951**	**1,335,522**	**3,130,697**	**5,065,887**

DATE: April 5, 2013

TO: SEAPA Board of Directors

FROM: Trey Acteson

SUBJECT: Financial Reports – February, 2013

Financial reports for February, 2013 follow this memo. The following are a few brief highlights

- February, 2013 revenues from kWh sales were under budget:
  $1,072,853 actual vs. $1,135,600 budget.
  - Ketchikan - $521,560 actual vs. $623,424 budget
  - Petersburg - $257,646 actual vs. $272,000 budget
  - Wrangell - $224,730 actual vs. $240,176 budget

- Year-to-date (July – Jan) revenues from kWh sales were also lower than budget:
  $8,017,565 actual vs. $8,253,432 budget.
  - Ketchikan - $4,169,352 actual vs. $4,361,792 budget
  - Petersburg - $1,985,252 actual vs. $2,079,576 budget
  - Wrangell - $1,794,045 actual vs. $1,812,064 budget

- February, 2013 sales in kWh – 14,763,770 vs.
  February, 2012 sales in kWh – 16,372,440 and
  February, 2011 sales in kWh – 16,099,650

- Year-to-date (July – February, 2013) sales in kWh – 116,891,890 vs.
  Year-to-date (July – February, 2012) sales in kWh – 119,861,970 and
  Year-to-date (July – February, 2011) sales in kWh – 114,882,260

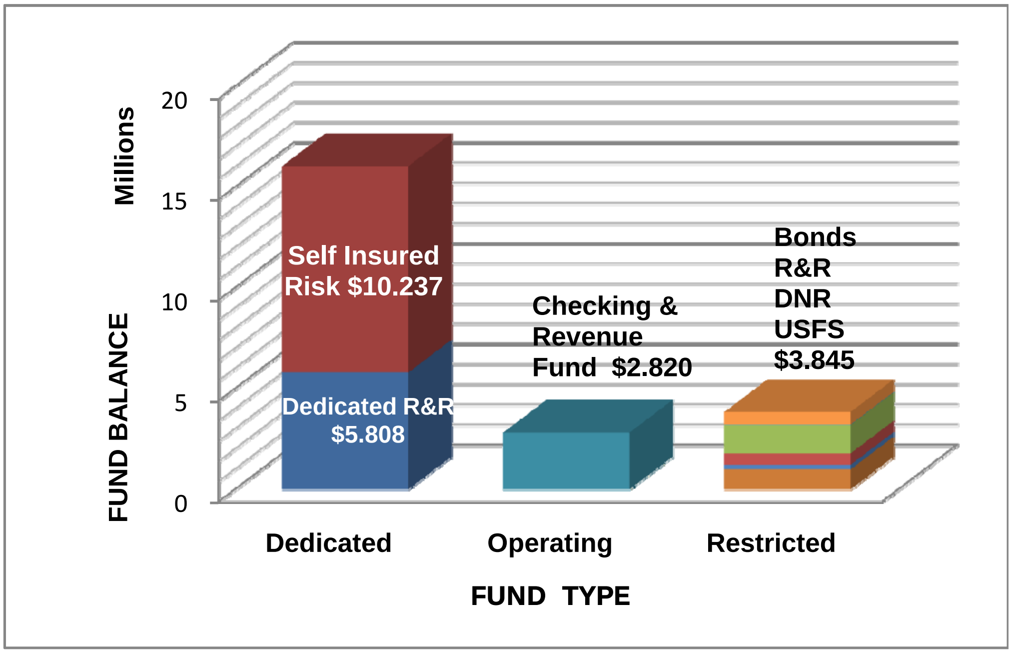
- Administrative and operating expenses for February, 2013 were under budget:
  $344,221 actual vs. $546,549 budget.

- Year-to-date administrative and operating expenses (July – February) were under budget:
  $3,245,523 actual vs. $4,450,484 budget.

As always, feel free to ask any questions concerning the financials.

SOUTHEAST ALASKA POWER AGENCY
Fund Allocation Graph
As of February 28, 2013

	02/28/13
ASSETS	
Current Assets	
Age Agency Funds	
111000 · Ops/Capital/Insurance Funds	
111100 · Revenue Fund FB	2,819,427
111200 · Required R&R Fund FB	1,000,408
111210 · Dedicated R&R Projects Fund FB	5,808,087
111300 · Commercial FB	1,000
111400 · Subordinate Debt Fund FB	309
111500 · Self Insured Risk Fund FNBA	10,236,598
Total 111000 · Ops/Capital/Insurance Funds	19,865,829
112000 · Trustee Funds	
112100 · WF Trust Bond Interest	226,973
112200 · WF Trust Bond Principal	562,529
112300 · WF Trust Bond Reserve	1,405,884
112400 · WF Refund 2004AB Escrow	2
Total 112000 · Trustee Funds	2,195,388
113000 · Restricted Funds	
113100 · STI - USFS CD WF	21,602
113500 · DNR Reclamation Fund WF	627,238
Total 113000 · Restricted Funds	648,841
Tot Total Agency Funds	22,710,058



Dedicated Funds

Self-Insured Risk Fund = Coverage for uninsured transmission lines, submarine cables and insurance deductibles

Dedicated R&R = Funding for FY13 Replacement & Repair projects approved by Board

Operating Funds

Checking & Revenue Fund

Restricted Funds (Legally or contractually restricted)

Bonds = 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
Statement of Financial Position - Summary
As of February 28, 2013

	Feb 28, 13
ASSETS	
Current Assets	
Agency Funds	
111000 · Ops/Capital/Insurance Funds	19,865,829
112000 · Trustee Funds	2,195,388
113000 · Restricted Funds	648,841
Total Agency Funds	22,710,058
Accounts Receivable	
110000 · Accounts Receivable	1,779,302
110100 · Grants Receivable	12,584
Total Accounts Receivable	1,791,886
Other Current Assets	
120000 · Other Current Assets	413,852
Total Other Current Assets	413,852
Total Current Assets	24,915,796
Fixed Assets	
130000 · Fixed Assets	132,429,850
Total Fixed Assets	132,429,850
Other Assets	
133000 · Other Assets	741,253
Total Other Assets	741,253
TOTAL ASSETS	**158,086,899**
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
210100 · Accounts Payable General	306,762
Total Accounts Payable	306,762
Other Current Liabilities	
210150 · Other Current Liabilities	243,858
210300 · Reserve Interest Payable	168,404
210400 · Wages Payable	44,275
210500 · Payroll Liabilities	2,724
Total Other Current Liabilities	459,262
Total Current Liabilities	766,024
Long Term Liabilities	
220000 · Long Term Liabilities	14,656,604
Total Long Term Liabilities	14,656,604
Total Liabilities	15,422,628
Equity	
310000 · Equity	133,661,640
32000 · Unrestricted Net Assets	7,404,056
Net Income	1,598,574
Total Equity	142,664,271
TOTAL LIABILITIES & EQUITY	**158,086,899**

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Summary
February 2013

	Feb 13
Ordinary Income/Expense	
Income	
410000 · Hydro Facility Revenues	1,003,936
Total Income	1,003,936
Expense	
535000 · Hyd/Op-Sup & Engineering	13,657
537000 · Hydraulic Expenses	546
538000 · Electric Expenses	147
539000 · Misc Power Generation Expense	27,274
540000 · Rents	13,409
541000 · Hydro Power Station Maintenance	11,247
542000 · Hydro Structure Maintenance	8,286
543000 · Dams, Reservoirs & Waterways	3,205
544000 · Maintenance of Electric Plant	54,531
545000 · Plant Miscellaneous Maintenance	22,495
560000 · Trans Sys Operation Sup & Eng	965
561000 · Trans/SCADA Load Dispatch	1,253
562000 · Trans/Operations Station Exp	3,485
564000 · Trans/Submarine Cable Expense	4,885
571000 · Trans/Maint - Overhead Lines	14,783
920000 · Administrative Expenses	82,390
921000 · Office Expenses	6,548
922000 · Legislative Affairs	8,000
923000 · Contract Services	12,862
924000 · Insurance	40,087
928000 · Regulatory Commission Expense	7,500
930000 · General Expenses	6,220
931000 · Office Rent	448
Total Expense	344,221
Net Ordinary Income	659,716
Other Income/Expense	
Other Income	
942000 · Interest Income	12,914
945000 · Unrealized Gain/Loss	(4,059)
Total Other Income	8,854
Other Expense	
951000 · Amortization Expense	3,518
952000 · Bond Interest 2009 Series	57,340
953000 · Depreciation Expense	324,908
954000 · Grant Expenses	19,753
Total Other Expense	405,519
Net Other Income	(396,665)
Net Income	**263,050**

SOUTHEAST ALASKA POWER AGENCY
Statement of Financial Position - Detail
As of February 28, 2013

	Feb 28, 13
ASSETS	
Current Assets	
Agency Funds	
111000 · Ops/Capital/Insurance Funds	
111100 · Revenue Fund FB	2,819,427
111200 · Required R&R Fund FB	1,000,408
111210 · Dedicated R&R Projects Fund FB	5,808,087
111300 · Commercial FB	1,000
111400 · Subordinate Debt Fund FB	309
111500 · Self Insured Risk Fund FNBA	10,236,598
Total 111000 · Ops/Capital/Insurance Funds	19,865,829
112000 · Trustee Funds	
112100 · WF Trust Bond Interest	226,973
112200 · WF Trust Bond Principal	562,529
112300 · WF Trust Bond Reserve	1,405,884
112400 · WF Refund 2004AB Escrow	2
Total 112000 · Trustee Funds	2,195,388
113000 · Restricted Funds	
113100 · STI - USFS CD WF	21,602
113500 · DNR Reclamation Fund WF	627,238
Total 113000 · Restricted Funds	648,840
Total Agency Funds	22,710,057
Accounts Receivable	
110000 · Accounts Receivable	1,779,302
110100 · Grants Receivable	12,584
Total Accounts Receivable	1,791,886
Other Current Assets	
120000 · Other Current Assets	
120200 · Other Receivables	4,176
120300 · Accrued Interest Receivable	30,685
120500 · Prepaid Fees	
120520 · Prepaid Insurance	200,433
120540 · Prepaid USDA FS Land Use Fees	64,084
120550 · Prepaid Admin Expense	106,332
Total 120500 · Prepaid Fees	370,849
120700 · Inventory Assets	
120701 · Inventory - Wood Poles	8,143
Total 120700 · Inventory Assets	8,143
Total 120000 · Other Current Assets	413,853
Total Other Current Assets	413,853
Total Current Assets	24,915,796

SOUTHEAST ALASKA POWER AGENCY
Statement of Financial Position - Detail
As of February 28, 2013

	Feb 28, 13
Fixed Assets	
130000 · Fixed Assets	
130100 · Capital Assets	
130110 · Swan Lake	16,018,330
130120 · Tyee Lake	25,960,484
130130 · SEAPA Office	629,330
Total 130100 · Capital Assets	42,608,144
132100 · Swan Tyee Intertie in Operation	111,381,868
132200 · R&R Projects WIP Capital Improv	
132210 · R&R Projects - WIP Swan Lake	638,956
132220 · R&R Projects - WIP Tyee Lake	170,245
132230 · R&R Projects - WIP STI-Transmsn	142,454
132240 · R&R Projects - WIP SEAPA Office	58,629
Total 132200 · R&R Projects WIP Capital Improv	1,010,284
132900 · Accumulated Depreciation	(22,570,446)
Total 130000 · Fixed Assets	132,429,850
Total Fixed Assets	132,429,850
Other Assets	
133000 · Other Assets	
133100 · Accumulated Amortization	
133110 · Amortization	(220,680)
Total 133100 · Accumulated Amortization	(220,680)
133200 · Bond Fees	
133210 · Origination Fees	444,906
133220 · Cost of Issuance Fees	52,000
Total 133200 · Bond Fees	496,906
183000 · Deferred Assets	
183100 · Swan Lake Increased Storage	465,027
Total 183000 · Deferred Assets	465,027
Total 133000 · Other Assets	741,253
Total Other Assets	741,253
TOTAL ASSETS	**158,086,899**

SOUTHEAST ALASKA POWER AGENCY
Statement of Financial Position - Detail
As of February 28, 2013

	Feb 28, 13
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
210100 · Accounts Payable General	306,762
Total Accounts Payable	306,762
Other Current Liabilities	
210150 · Other Current Liabilities	243,858
210300 · Reserve Interest Payable	168,404
210400 · Wages Payable	44,275
210500 · Payroll Liabilities	
210530 · SUI Tax Payable	2,724
Total 210500 · Payroll Liabilities	2,724
Total Other Current Liabilities	459,261
Total Current Liabilities	766,023
Long Term Liabilities	
220000 · Long Term Liabilities	
220100 · Series B Bonds 2009	14,775,000
220110 · Bond Issuance Premium	17,219
220120 · Bond Discount	(135,615)
Total 220000 · Long Term Liabilities	14,656,604
Total Long Term Liabilities	14,656,604
Total Liabilities	15,422,627
Equity	
310000 · Equity	
310100 · STI Net Assets	106,354,593
310300 · Retained Earnings	27,307,048
Total 310000 · Equity	133,661,641
32000 · Unrestricted Net Assets	7,404,056
Net Income	1,598,574
Total Equity	142,664,271
TOTAL LIABILITIES & EQUITY	**158,086,899**

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Budget Comparison Detail
February 2013

	Feb 13	Budget	Jul '12 - Feb 13	YTD Budget	Annual Budget
Ordinary Income/Expense					
Income					
410000 · Hydro Facility Revenues					
410100 · Ketchikan Power Purchases	521,560	623,424	4,169,352	4,361,792	6,311,216
410200 · Petersburg Power Purchases	257,646	272,000	1,985,252	2,079,576	2,939,912
410300 · Wrangell Power Purchases	224,730	240,176	1,794,045	1,812,064	2,524,704
Total 410000 · Hydro Facility Revenues	1,003,936	1,135,600	7,948,649	8,253,432	11,775,832
Total Income	1,003,936	1,135,600	7,948,649	8,253,432	11,775,832
Expense					
535000 · Hyd/Op-Sup & Engineering					
535100 · Hyd/Op Sup & Eng - Swan Lake	1,416	8,675	32,990	69,400	104,150
535200 · Hyd/Op Sup & Eng - Tyee Lake	10,921	12,000	79,409	96,000	144,700
535300 · Hyd/Op Sup & Eng - Admin	0	4,100	280	32,800	50,000
535400 · Hyd/Op Sup & Eng - Proj Drawing	0	20,000	2,159	120,000	200,000
535700 · Hyd/Op Sup & Eng - 4R Plan	1,320		37,817	50,000	50,000
535800 · Hyd/Op Sup & Eng-Operatn Review	0	16,500	45,462	132,000	200,000
Total 535000 · Hyd/Op-Sup & Engineering	13,657	61,275	198,117	500,200	748,850
537000 · Hydraulic Expenses					
537100 · Hydraulic Expense - Swan Lake	546	77,775	544	3,830	5,750
537200 · Hydraulic Expense - Tyee Lake	0	85	0	660	1,000
537300 · Hydraulic Expense - MAPCON Adm	0	800	4,390	6,400	10,000
537400 · Hydraulic Expense - Engineering	0	400	0	3,200	5,000
Total 537000 · Hydraulic Expenses	546	79,060	4,934	14,090	21,750
538000 · Electric Expenses					
538100 · Electric Expense - Swan Lake	49	190	976	1,490	2,250
538200 · Electric Expense - Tyee Lake	0	270	10,747	2,170	3,250
538300 · Electric Exp - Engineer/Consult	98	2,000	98	17,000	25,000
538400 · Electric Exp - Governor Support	0	85	0	660	1,000
Total 538000 · Electric Expenses	147	2,545	11,821	21,320	31,500
539000 · Misc Power Generation Expense					
539100 · Misc Exp - Swan Lake	1,274	6,500	27,911	52,000	78,520
539200 · Misc Expense - Tyee Lake	10,879	20,170	180,719	161,360	242,100
539300 · Misc Expense - Annual Inspectns	5,031	1,700	20,599	13,600	20,500
539310 · Fuel & Delivery	0		7,638		
539400 · Misc Expense - Permits & Maps	0		900		
539500 · Misc Expense - Communications	10,090	12,120	112,090	96,960	145,500
Total 539000 · Misc Power Generation Expense	27,274	40,490	349,857	323,920	486,620

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Budget Comparison Detail
February 2013

	Feb 13	Budget	Jul '12 - Feb 13	YTD Budget	Annual Budget
540000 · Rents					
540300 · FERC Land Use Fee - Swan Lake	3,667	3,660	23,370	29,360	44,000
540400 · FERC Land Use Fee - Tyee Lake	3,334	3,300	21,058	26,800	40,000
540500 · USDA Land Use Fee - USFS ROW	1,541	1,650	12,157	13,400	20,000
540600 · USDA Land Use Fee - STI	4,720	5,000	37,235	40,000	60,000
540700 · USDA Tyee Passive Reflector	103	110	817	910	1,350
540710 · USDA Etolin Burnett Radio	44	50	345	450	650
Total 540000 · Rents	13,409	13,770	94,982	110,920	166,000
541000 · Hydro Power Station Maintenance					
541100 · Maint/Supervision - Swan Lake	0		(5)		
541300 · Maint/Sup - Operator Training	0	2,500	1,654	20,000	30,000
541500 · Maint/Sup - Engineering Service	11,247	5,800	38,812	46,800	70,000
Total 541000 · Hydro Power Station Maintenance	11,247	8,300	40,461	66,800	100,000
542000 · Hydro Structure Maintenance					
542100 · Hyd Structure Maint - Swan Lake	8,286	5,700	103,615	46,100	68,900
Total 542000 · Hydro Structure Maintenance	8,286	5,700	103,615	46,100	68,900
543000 · Dams, Reservoirs & Waterways					
543100 · Dams Res & Waterwys - Swan Lake	3,205	1,500	40,077	12,000	18,800
543200 · Dams Res & Waterwys - Tyee Lake	0	650	5,348	5,200	8,000
543300 · Dams Res & Wtrwys - Dam Surveys	0	210	2,902	1,660	2,500
543410 · Dams Res & Waterwys-DSSMR-SL	0	830	0	6,680	10,000
Total 543000 · Dams, Reservoirs & Waterways	3,205	3,190	48,327	25,540	39,300
544000 · Maintenance of Electric Plant					
544100 · Maint Electric Plant-Swan Lake	10,633	23,100	107,555	184,800	277,350
544200 · Maint Electric Plant-Tyee Lake	43,897	55,450	381,667	443,600	665,800
544300 · Maint Electric Plant-Engineerng	0	4,150	2,881	33,400	50,000
Total 544000 · Maintenance of Electric Plant	54,530	82,700	492,103	661,800	993,150
545000 · Plant Miscellaneous Maintenance					
545100 · Plant Misc Maint - Swan Lake	22,027	20,900	141,011	167,100	250,700
545200 · Plant Misc Maint - Tyee Lake	468	1,150	2,356	9,200	13,900
545300 · Plant M/M - USGS Stream Gauging	0	1,000	20,054	51,000	55,000
545400 · Plant Misc Maint - ADF&G	0	1,650	0	13,400	20,000
Total 545000 · Plant Miscellaneous Maintenance	22,495	24,700	163,421	240,700	339,600
560000 · Trans Sys Operation Sup & Eng					
560200 · Sys Ops Sup & Eng - Tyee Lake	563	1,200	4,417	9,600	14,600
560300 · Sys Ops Sup & Eng-Enginr/Conslt	401	7,900	19,649	63,400	95,000
Total 560000 · Trans Sys Operation Sup & Eng	964	9,100	24,066	73,000	109,600

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Budget Comparison Detail
February 2013

	Feb 13	Budget	Jul '12 - Feb 13	YTD Budget	Annual Budget
561000 · Trans/SCADA Load Dispatch					
561200 · SCADA Load Dispatch - Tyee Lake	383	580	6,859	4,640	7,000
561400 · SCADA Support- Engineer/Consult	870		870		
Total 561000 · Trans/SCADA Load Dispatch	1,253	580	7,729	4,640	7,000
562000 · Trans/Operations Station Exp					
562100 · Trans/Op Station Ex - Swan Lake	634	1,250	952	10,000	15,000
562200 · Trans/Op Station Ex - Tyee Lake	2,852	2,550	17,771	20,400	30,650
562300 · Trans/Op - Contract Services	0	10,400	24,713	83,200	125,000
Total 562000 · Trans/Operations Station Exp	3,486	14,200	43,436	113,600	170,650
564000 · Trans/Submarine Cable Expense					
564200 · Trans/Sub Cable Exp - Tyee Lake	4,885	400	10,985	3,200	4,825
564300 · Trans/Sub Cable-Engineerng Serv	0	2,500	0	20,000	30,000
Total 564000 · Trans/Submarine Cable Expense	4,885	2,900	10,985	23,200	34,825
571000 · Trans/Maint - Overhead Lines					
571100 · Trans/Maint-OH Lines- Swan Lake	0	1,200	3	9,600	14,700
571200 · Trans/Maint-OH Lines-Tyee Lake	14,783	19,100	120,022	152,800	229,600
571300 · Trans/Maint - T-Line Maint Cont	0	37,500	81,272	300,000	450,000
571600 · Trans/Maint OH-Spare Mat Stor	0	0	350	500	500
571700 · Trans/Maint OH STI Clearing	0	9,000	0	64,000	100,000
571800 · Trans/Maint OHL System Events	0	15,000	30,498	90,000	150,000
Total 571000 · Trans/Maint - Overhead Lines	14,783	81,800	232,145	616,900	944,800
920000 · Administrative Expenses					
920100 · Administrative	82,390	75,680	598,840	604,380	907,100
920200 · Contract Staff	0		47,200	48,750	48,750
Total 920000 · Administrative Expenses	82,390	75,680	646,040	653,130	955,850
921000 · Office Expenses					
921100 · Office Supplies	428	1,700	6,730	13,700	20,500
921200 · Office Equipment	1,163	1,000	20,446	11,000	15,000
921300 · Phone, Courier, Internet	2,343	1,950	14,675	14,900	22,700
921400 · System Networking	2,149	2,950	19,987	23,550	35,350
921600 · Vehicle Expenses	466	200	786	1,600	2,500
Total 921000 · Office Expenses	6,549	7,800	62,624	64,750	96,050
922000 · Legislative Affairs	8,000	5,800	32,143	46,400	70,000

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Budget Comparison Detail
February 2013

	Feb 13	Budget	Jul '12 - Feb 13	YTD Budget	Annual Budget
923000 · Contract Services					
923200 · Annual Financial Audit	0	2,000	23,143	26,000	26,000
923300 · Bank & Trustee Fees	2,798	960	10,041	7,660	11,500
923400 · Insurance Consultant	2,500	1,250	6,985	10,000	15,000
923500 · Investment Consultant	2,117	2,210	16,907	17,660	26,500
923600 · Legal Fees	4,446	16,650	71,746	133,400	200,000
923700 · Recruitment	0		23,954	30,000	30,000
923800 · Other Professional Services	1,000		1,000		
Total 923000 · Contract Services	12,861	23,070	153,776	224,720	309,000
924000 · Insurance	40,087	47,650	322,771	381,200	571,800
928000 · Regulatory Commission Expense					
928100 · Emergency Action Plan	0	200	20,873	1,700	2,500
928200 · FERC Filings	0	84	0	664	1,000
928300 · FERC Administrative Fees	7,500	7,500	54,070	60,000	90,000
Total 928000 · Regulatory Commission Expense	7,500	7,784	74,943	62,364	93,500
930000 · General Expenses					
930100 · Advertising Expense	314	290	4,698	2,340	3,500
930200 · Annual Rpt/Signage Expense	0	20	54	160	250
930300 · Association Dues Expense	0	2,300	24,289	18,400	27,600
930400 · Board Meeting Expenses	272	8,000	14,553	32,000	45,000
930500 · Training Expense	2,843	750	9,253	6,000	9,000
930600 · Travel Expense	2,430	2,500	28,830	20,000	30,000
930700 · Non-Travel Incidental	360	290	1,113	2,340	3,500
Total 930000 · General Expenses	6,219	14,150	82,790	81,240	118,850
931000 · Office Rent	448	4,100	33,553	33,200	49,600
931100 · Apartment Rent - Ketchikan	0	1,500	10,732	12,750	18,750
Total Expense	344,221	617,844	3,245,371	4,402,484	6,545,945
Net Ordinary Income	659,715	517,756	4,703,278	3,850,948	5,229,887
Other Income/Expense					
Other Income					
941000 · Grant Income	0		15,386		
942000 · Interest Income					
942100 · Misc Interest Income	714		14,724		
942200 · Investment Interest Income	12,200		108,914		
Total 942000 · Interest Income	12,914		123,638		

SOUTHEAST ALASKA POWER AGENCY
Statement of Activities - Budget Comparison Detail
February 2013

	Feb 13	Budget	Jul '12 - Feb 13	YTD Budget	Annual Budget
944000 · Realized Gain/Loss					
944100 · Realized Gain/Loss Bonds	0		(2,349)		
944200 · Realized Gain/Loss on Invest	0		(23,304)		
Total 944000 · Realized Gain/Loss	0		(25,653)		
945000 · Unrealized Gain/Loss					
945100 · Unrealized Gain/Loss Bonds	(1,241)		(7,919)		
945200 · Unrealized Gain/Loss Investment	(2,819)		23,920		
Total 945000 · Unrealized Gain/Loss	(4,060)		16,001		
946000 · Misc Nonoperating Income					
946002 · Gain/Loss on Property Dispositn	0		16,939		
Total 946000 · Misc Nonoperating Income	0		16,939		
Total Other Income	8,854		146,311		
Other Expense					
951000 · Amortization Expense	3,518		28,144		
952000 · Bond Interest 2009 Series	57,340		458,721		
953000 · Depreciation Expense	324,908		2,599,267		
954000 · Grant Expenses					
954002 · Grant Contractual	17,978		54,994		
954004 · Grant Labor & Benefits	251		2,207		
954005 · Grant Legal	280		16,345		
954006 · Grant Materials & Supplies	0		2,498		
954007 · Grant Other Expense	1,141		1,362		
954008 · Grant Travel	103		4,573		
Total 954000 · Grant Expenses	19,753		81,979		
954100 · Contributed Capital	0		(2,250)		
955000 · Interest Expense					
955200 · Investment Interest Expense	0		0		
Total 955000 · Interest Expense	0		0		
980000 · R&R Fund Expenses					
980100 · R&R Fund - Swan Lake	0	800	537	6,400	10,000
980200 · R&R Fund - Tyee Lake	0	800	77,266	65,900	69,500
980400 · R&R Fund - Solomon Gulch PFMA	0		7,199	12,500	12,500
Total 980000 · R&R Fund Expenses	0	1,600	85,002	84,800	92,000
Total Other Expense	405,519	1,600	3,250,863	84,800	92,000
Net Other Income	(396,665)	(1,600)	(3,104,552)	(84,800)	(92,000)
Net Income	**263,050**	**516,156**	**1,598,726**	**3,766,148**	**5,137,887**

SOUTHEAST ALASKA POWER AGENCY
FY13 Grant Summary
June 30, 2012 through February 28, 2013

	Grant	Expenditures	Balance
Grant Income			
***FY13 AEA KPI#1**			
1 - Project Mgmt	500,000.00	3,694.33	496,305.67
2 - EIS	932,940.00	504,788.40	428,151.60
3 - Engineering / Design	296,165.00	172,561.61	123,603.39
4 - Engineering / Geotechnical	150,000.00	0.00	150,000.00
5 - SE Conference	50,000.00	26,702.14	23,297.86
6 - Unallocated	1,060,895.00	0.00	1,060,895.00
Total FY13 AEA KPI#1	2,990,000.00	707,746.48	2,282,253.52
FY13 AEA KPI#2			
1 - Unallocated	2,000,000.00	0.00	2,000,000.00
Total FY13 AEA KPI#2	2,000,000.00	0.00	2,000,000.00
FY13 AK DLG			
1 - Hydro Storage	578,000.00	2,250.20	575,749.80
2 - G&T Site Evaluation	1,705,000.00	0.00	1,705,000.00
3 - Stability / Interconnectiv	146,000.00	0.00	146,000.00
4 - Load Balance Model	112,000.00	0.00	112,000.00
5 - Project Mgmt	309,000.00	0.00	309,000.00
6 - Business Analysis / PSA	150,000.00	9,441.71	140,558.29
Total FY13 AK DLG	3,000,000.00	11,691.91	2,988,308.09
TOTAL	**7,990,000.00**	**719,438.39**	**7,270,561.61**

*$704,052.15 expended by Kwaan Electric Transmission Intertie Coop. prior to grant assignment to SEAPA
AEA grants are updated QUARTERLY.

SOUTHEAST ALASKA POWER AGENCY
Project Feasibility : Swan Lake Increased Storage
Through February 2013

Date	Num	Name	Amount
183100 · Swan Lake Increased Storage			
06/30/12		FY2012 Expenses	151,421.25
07/13/12	24094	Taquan Air	1,233.00
07/19/12	25275	Temsco Helicopters, Inc.	1,964.25
07/31/12	9504EW201207	"First Bankcard	25.17
07/31/12	9358ST201207	"Bank of America	11.70
07/31/12	122737002	R&M Engineering	27,776.53
07/31/12	50585615	Tetra Tech Inc	3,585.55
07/31/12	1009	Long View Associates	8,045.33
08/10/12	24355	Taquan Air	834.00
08/13/12	11G002962	Anixter	2,250.20
08/22/12	24476	Taquan Air	625.50
08/24/12	50594973	Tetra Tech Inc	40,453.15
08/31/12	9504EW201208	"First Bankcard	603.00
08/31/12	245	Ketchikan, City of (AR)	417.00
08/31/12	5312012	CDDHoward Consulting Ltd.	2,100.00
08/31/12	1001	Long View Associates	7,505.69
09/04/12	24632	Taquan Air	417.00
09/04/12	24633	Taquan Air	417.00
09/10/12	INV1571519	Radwell Intl	917.80
09/14/12	24743	Taquan Air	417.00
09/30/12	9504EW201209	"First Bankcard	243.96
09/30/12	1002	Long View Associates	5,712.30
09/30/12	122737-3	R&M Engineering	2,667.31
10/05/12	203945924	FedEx	406.30
10/10/12	50606188	Tetra Tech Inc	87,814.96
10/16/12	192501	Best Western Landing Hotel	154.47
10/16/12	192502	Best Western Landing Hotel	133.76
10/31/12	THO9358-201210	"Bank of America	423.60
10/31/12	WOL9225-201210	"Bank of America	39.59
10/31/12	1003	Long View Associates	6,047.12
11/05/12	50618015	Tetra Tech Inc	23,549.08
11/23/12	50627782	Tetra Tech Inc	9,502.14
11/30/12	INV121205	Segrity LLC	3,639.93
12/03/12	25099	Taquan Air	417.00
12/18/12	1004	Long View Associates	3,194.40
12/31/12	1005	Long View Associates	3,782.16
01/18/13	50641314	Tetra Tech Inc	18,159.72
01/27/13	2890	McMillen, LLC	9,476.99
01/31/13	3411	Federal Energy Regulatory Commission 88	54.00
01/31/13	3497	Federal Energy Regulatory Commission 88	55.80
01/31/13	BF10052200024	USDA Forest Service	200.00
02/04/13	50646868	Tetra Tech Inc	22,774.85
02/24/13	2990	McMillen, LLC	13,333.03
02/28/13	196653	Best Western Landing Hotel	116.49
02/28/13	3516	Federal Energy Regulatory Commission 88	40.50
02/28/13	40996	Refiner's Roast Coffees, LLC	666.70
02/28/13	THO9358-201302	"Bank of America	1,004.88
02/28/13	WOL9225-201302	"Bank of America	396.22
TOTAL			**465,027.38**

183200 - Tyee Lake Stream Gage moved to R&R

Southeast Alaska Power Agency
R&R PROJECT SUMMARY
February 28, 2013

	FY13 Budget	FY13 Expenditures		FY10	FY11	FY12	FY13	Total Expenditures
				EXPENDITURES				
R&R EXPENSE JOB COSTS								
213-12 Road Repair SWL - CLOSED FY12	**$ 50,000**	$0	Closed FY12	-	-	-	-	**-**
214-12 Digital Relays (3) TYL	**$ -**	$2,311	Closed FY12: Late invoice received.	-	-	-	$2,311	**2,311**
215-12 Narrowband Radios	**$ 35,000**	$49,334	Closed FY12	-	-	4,010	49,334	53,344
222-13 Power Pole Replacements	**$ 302,500**	$0	July 2013	-	-	-	-	**-**
223-13 Vehicle TYL - CLOSED FY13	**$ 24,500**	$24,918	Closed FY12	-	-	-	24,918	**24,918**
224-13 Misc R&R SWL	**$ 10,000**	$537	Employee housing expense.	-	-	-	537	**537**
225-12 Misc R&R TYL	**$ 10,000**	$3,207	Housing renovations.	-	-	-	3,207	**3,207**
SEAPA-02 Solomon PFMA - CLOSED	**$ 12,500**	$7,199	Closed: Nov 2012	12,317	172,318	454,931	7,199	**646,764**
Total R&R Expense Job Costs	**$ 444,500**	**$87,506**		12,317	172,318	458,941	87,506	**$731,082**

Southeast Alaska Power Agency
R&R PROJECT SUMMARY
February 28, 2013

	FY13 Budget	FY13 Expenditures		FY10	FY11 (EXPENDITURES)	FY12	FY13	Total Expenditures
WIP R&R CAPITAL PROJECTS								
002-10TRN Helicopter Pads	**$ -**	$0	R&R will close when prototype is placed in the field. See R&R 231-13	155,131	11,156	(63,600)	-	**102,686**
220-12 SCADA Upgrade	**$ 800,000**	$111,153	LAN/WAN technical/security specs.	-	-	130,663	111,153	**241,816**
226-13 XFMR Junction Boxes Bailey	**$ 90,000**	$0	Purchase order in place: Jan 2013	-	-	-	-	**-**
227-13 Burnett Peak Battery	**$ 34,300**	$21,140	Batteries purchased: Jan 2013	-	-	-	21,140	**21,140**
228-13 Circuit Switcher WRG	**$ 100,000**	$0	Scheduled after RR236-13, FY14.	-	-	-	-	**-**
229-13 Gate Control Refurbish TYL	**$ 35,000**	$6,754	Coordinate install w/RR234-13	-	-	-	6,754	**6,754**
230-13 Boat Dock Replace TYL	**$ 55,000**	$0	RFP issued April 2013.	-	-	-	-	**-**
231-13 Helicopter Pads	**$ 1,135,000**	$31,141	Pending USFS permitting.	-	-	-	31,141	**31,141**
232-13 Communications Upgrade	**$ 2,150,000**	$1,772	RFP issued March 2013.	-	-	-	1,772	**1,772**
233-13 Excavator SWL	**$ 220,000**	$135,500	Delivered March 2013; under budget.	-	-	-	135,500	**135,500**
234-13 Gatehs Generator TYL	**$ 82,000**	$0	RFP in progress.	-	-	-	-	**-**
235-13 SEAPA Servers - CLOSED FY13	**$ 43,000**	$39,482	Closed: Dec 2012	-	-	-	39,482	**39,482**
236-13 Wrangell Reactor	**$ 3,615,000**	$8,909	Pending EPS studies.	-	-	-	8,909	**8,909**
237-13 Remote Brkr Rack. Device	**$ 70,000**	$0	Bids to be requested.	-	-	-	-	**-**
238-13 Replacement Winding SWL	**$ 895,000**	$389,892	Delivery scheduled: May 2013	-	-	-	389,892	**389,892**
240-13 Cooling Water TYL	**$ 199,688**	$15,005	R&R project approved March 2013	-	-	-	15,005	**15,005**
241-13 Stream Gauge TYL	**$ 1,467,758**	$12,037	In progress.	-	-	-	12,037	**12,037**
Total WIP R&R Capital Projects	**$10,991,746**	**$772,785**		$155,131	$11,156	$67,062	$772,785	**$1,006,133**
TOTAL CURRENT R&R PROJECTS	**$11,436,246**	**$860,291**		$167,448	$183,473	$526,003	$860,291	**$1,737,215**

Southeast Alaska Power Agency
R&R PROJECT DETAIL
February 28, 2013

Date	Num	Vendor	FY13 BUDGET $	Amount	Description
R&R EXPENSE JOB COSTS					
213-12 Road Repair SWL - CLO			**$50,000**	-	This project was budgeted for FY13, but a June invoice was paid in the amount of $49,050. Project closed in FY12.
Total 213-12 Road Repair SWL				-	
214-12 Digital Relays (3) TYL			**$0**	-	This project was closed in FY12, but a late invoice was received in November.
04/30/12	14872	Electric Power Systems Inc.		7,234	
05/31/12	14960	Electric Power Systems Inc.		13,693	
06/30/12	15266	Electric Power Systems Inc.		1,144	
06/30/12	242			(22,071)	
07/31/12	15267	Electric Power Systems Inc.		2,311	
Total 213-12 Road Repair SWL				2,311	
215-12 Narrowband Radios			**$35,000**	-	FCC Mandate that all VHF transmitters shall operate on narrowband (12.5 kHz or narrower) by Janiuary 1, 2013. Gillespie, Prudhon & Assoc. recommended changing these radios to compliant models. CLOSED FY12.
02/16/12	215	Ketchikan City of 334		818	
05/15/12	1205170	Action Communications		3,192	
10/20/12	34336	Northern Communications Co.		60	
10/22/12	25940	Temsco Helicopters, Inc.		5,758	
10/23/12	25939	Temsco Helicopters, Inc.		6,087	
10/24/12	42934	Coastal Helicopters, Inc.		5,817	
10/25/12	50869	Sunrise Aviation Inc		840	
10/30/12	34359	Northern Communications Co.		42	
10/30/12	17599	AP&T Wireless, Inc.		2,427	
10/31/12	321383	Alaska Airlines Inc		57	
10/31/12	TBPA201210	Thomas Bay Power Authority		706	
11/14/12	17757	AP&T Wireless, Inc.		25,576	
11/28/12	17799	AP&T Wireless, Inc.		909	
11/30/12	TBPA201211	Thomas Bay Power Authority		101	
12/19/12	17924	AP&T Wireless, Inc.		816	
12/31/12	TBPA201212	Thomas Bay Power Authority		73	
01/31/13	TBPA201301	Thomas Bay Power Authority		65	
Total 215-12 Narrowband Radios				53,344	FY13 - Reclassed as R&R expense (appears as R&R Capital in budget.)
222-13 Power Pole Replacemen			**$302,500**	-	This R&R renews annually to cover costs of transmission line power pole replacement. (S.Henson)
Total Power Pole Replacements				-	Reclassed as R&R expense (appears as R&R Capital in budget.)

Southeast Alaska Power Agency
R&R PROJECT DETAIL
February 28, 2013

Date	Num	Vendor	FY13 BUDGET $	Amount	Description
223-13 Vehicle TYL - CLOSED F			**$24,500**	-	Midsize SUV (Ford Explorer) purchased through state contract in July.
07/31/12	TBPA201207	Thomas Bay Power Authority		23,920	CLOSED AUG 2012
08/31/12	TBPA201208	Thomas Bay Power Authority		998	
Total 223-13 Vehicle TYL				24,918	
224-13 Misc R&R SWL			**$10,000**	-	Unscheduled renewal and replacement at Swan Lake. Employee housing.
12/31/12	KPU201212	Ketchikan Public Utilities 334		537	
Total 224-13 Misc R&R SWL				537	
225-12 Misc R&R TYL			**$10,000**	-	Unscheduled renewal and replacement at Tyee Lake.
07/31/12	TBPA201207	Thomas Bay Power Authority		2,466	Employee housing renovation expense.
08/31/12	TBPA201208	Thomas Bay Power Authority		741	
Total 225-12 Misc R&R TYL				3,207	
SEAPA-02 Solomon PFMA - CL			**$12,500**	-	Solomon Gulch PFMA Followup: Expenses to close out the PFMA recommendations, including penstock anchor blocks and the dam low level outlet works. The installation of guard rail closed out this project in November 2012. (T.Acteson) CLOSED NOV 2012
	$ 12,317	FY10 Expenditures			
	172,318	FY11 Expenditures			
	454,931	FY12 Expenditures			
11/26/12	4347	Copper Valley Electric Association		20,542	
11/30/12	250	Kodiak Electric Association		(2,131)	
11/30/12	250	Kodiak Electric Association		(22,500)	
11/30/12	250	Kodiak Electric Association		15,373	
11/30/12	251	Copper Valley Electric Assoc.		(2,131)	
11/30/12	251	Copper Valley Electric Assoc.		(22,500)	
11/30/12	251	Copper Valley Electric Assoc.		20,545	
Total SEAPA-02 Solomon PFMA				646,764	
Total R&R Expense Job Costs			**$444,500**	**731,082**	

Southeast Alaska Power Agency
R&R PROJECT DETAIL
February 28, 2013

Date	Num	Vendor	FY13 BUDGET $	Amount	Description
WIP R&R CAPITAL PROJECTS					
002-10TRN Helicopter Pads			**$0**	-	This project will be capitalized in FY13 when the helipad prototype is placed in service. The FY12 credit represents helipad design and materials that were abandoned due to excessive liability. Project continued under R&R 231-13.
$	155,131	FY10 Expenditures			
	11,156	FY11 Expenditures			
	(63,600)	FY12 Expenditures			
Total 002-10 Helicopter Pads				102,686	

Southeast Alaska Power Agency
R&R PROJECT DETAIL
February 28, 2013

Date	Num	Vendor	FY13 BUDGET $	Amount	Description
220-12 SCADA Upgrade			**$800,000**	-	SEAPA System SCADA Consolidation Project. Continuation of SEAPA 001-09. (E.Wolfe)
	$ 130,663	FY12 Expenditures			
07/28/12	INV120729	Segrity LLC		3,781	
07/28/12	INV120729	Segrity LLC		3,781	
09/27/12	24820	Taquan Air		209	
09/28/12	191859	Best Western Landing Hotel		99	
09/30/12	THO9358-20120!	"Bank of America		1,081	
10/12/12	163968	PR Electronics		5,876	
10/17/12	E12101702	Excel Automation		2,633	
10/17/12	INV0130018	Industrial Networking Solutions		1,236	
10/17/12	INV0130025	Industrial Networking Solutions		1,722	
10/25/12	INV0130065	Industrial Networking Solutions		5,602	
10/26/12	81854	MSI Tec Inc		12,488	
10/26/12	81855	MSI Tec Inc		10,318	
10/26/12	81890	MSI Tec Inc		15,360	
10/26/12	81891	MSI Tec Inc		5,771	
10/26/12	81892	MSI Tec Inc		20,334	
10/31/12	THO9358-20121(	"Bank of America		373	
11/05/12	24989	Taquan Air		617	
11/05/12	2265	Stikine Inn		57	
11/05/12	2265	Stikine Inn		57	
11/12/12	50890	Sunrise Aviation Inc		210	
11/12/12	50890	Sunrise Aviation Inc		210	
11/30/12	INV121205	Segrity LLC		313	
11/30/12	INV121205	Segrity LLC		313	
11/30/12	INV121205	Segrity LLC		8,564	
11/30/12	INV121205	Segrity LLC		8,564	
11/30/12	THO9358-20121:	"Bank of America		142	
11/30/12	THO9358-20121:	"Bank of America		142	
02/10/13	50973	Sunrise Aviation Inc		210	
02/10/13	50973	Sunrise Aviation Inc		210	
02/15/13	EW201302	.Wolfe, Eric		13	
02/15/13	EW201302	.Wolfe, Eric		13	
02/28/13	THO9358-20130:	"Bank of America		158	
02/28/13	THO9358-20130:	"Bank of America		158	
02/28/13	WOL9225-20130	"Bank of America		270	
02/28/13	WOL9225-20130	"Bank of America		270	
Total 220-12 SCADA Upgrade				241,816	

Southeast Alaska Power Agency
R&R PROJECT DETAIL
February 28, 2013

Date	Num	Vendor	FY13 BUDGET $	Amount	Description
226-13 XFMR Junction Boxes B			**$65,000**	-	Replace SEAPA transformer junction boxes at Bailey substation. Budget increased from $65K to $90K during Jan 2013 special board meeting. Junction boxes; purchase order issued in January. (S.Henson)
Total 226-13 XFMR Junction Boxes Bailey				-	
227-13 Burnett Peak Battery			**$34,300**	-	Battery replacement at Burnett Peak communication center. Batteries stored at SEAPA warehouse in Wrangell pending installation by AP&T. (S.Henson)
01/10/13	18040		**AP&T Wireless, Inc.**	21,140	
Total 227-13 Burnett Peak Battery				21,140	
228-13 Circuit Switcher WRG			**$100,000**	-	Replace manual 3-phase circuit switcher at the Wrangell switchyard. Scheduled after R&R236-13, FY14. (S.Henson)
Total 228-13 Circuit Switcher Wrg				-	
229-13 Gate Control Refurbish ˉ			**$35,000**	-	Replace control panel and components, rebuild hand-hydraulic pump. Scheduled for May 2013. (S.Henson)
08/02/12	961699521	Graybar		1,448	
08/03/12	558016	Alaska Marine Lines		48	
08/06/12	961747265	Graybar		116	
08/09/12	961827809	Graybar		60	
08/10/12	561355	Alaska Marine Lines		48	
08/23/12	962085477	Graybar		111	
08/28/12	962163192	Graybar		4,662	
08/29/12	571007	Alaska Marine Lines		57	
09/30/12	TBPA201209	Thomas Bay Power Authority		97	
11/30/12	TBPA201211	Thomas Bay Power Authority		61	
02/12/13	563745	Alaska Marine Lines		48	
Total 229-13 Gate Control Refurbish TYL				6,754	
230-13 Boat Dock Replace TYL			**$55,000**	**-**	Replace the boat dock at Tyee Lake. RFP issued April 2013. (P.Southland, S.Beers, S.Henson)
Total 230-13 Boat Dock Replace TYL				-	

Southeast Alaska Power Agency
R&R PROJECT DETAIL
February 28, 2013

Date	Num	Vendor	FY13 BUDGET $	Amount	Description
231-13 Helicopter Pads			**$1,135,000**	-	Helipad installation on the intertie and replacement of pads on Swan and Tyee lines. Includes design work. (S.Henson)
07/05/12	25192	Temsco Helicopters, Inc.		2,571	
09/06/12	16490213	R&M Consultants Inc		2,280	
10/03/12	26406	Ketchikan Daily News		260	
10/03/12	16490214	R&M Consultants Inc		582	
10/12/12	TX153273	Anchorage Daily News		232	
10/12/12	445430	Juneau Empire		195	
10/22/12	51669	Pilot Publishing, Inc.		33	
10/22/12	51675	Wrangell Sentinel		21	
11/05/12	50618016	Tetra Tech Inc		4,443	
11/09/12	16490215	R&M Consultants Inc		592	
11/23/12	50627783	Tetra Tech Inc		3,064	
12/13/12	26026	Temsco Helicopters, Inc.		944	
01/02/13	16490216	R&M Consultants Inc		3,012	
01/18/13	50641315	Tetra Tech Inc		532	
02/04/13	132011	Tongass Engineering		5,066	
02/04/13	50646869	Tetra Tech Inc		491	
02/05/13	16490217	R&M Consultants Inc		4,749	
02/28/13	132012	Tongass Engineering		2,074	
Total 231-13 Helicopter Pads				31,141	
232-13 Communications Upgra			**$2,150,000**	-	Preferred recommendation for SEAPA Communications upgrade. Continuation of Gillespie, Prudhon & Assoc. "Communication Network Evaluation & Recommendation" study. (S. Henson) RFP for satellite-system upgrade issued in March 2013.
10/04/12	26411	Ketchikan Daily News		258	
10/12/12	TX153349	Anchorage Daily News		256	
10/12/12	445431	Juneau Empire		205	
10/22/12	51669	Pilot Publishing, Inc.		33	
10/22/12	51675	Wrangell Sentinel		21	
11/30/12	INV121205	Segrity LLC		1,000	
Total 232-13 Communications Upgrade				1,772	
233-13 Excavator SWL			**$220,000**	-	New equipment to replace old boom truck and Grove crane. (S.Henson) Excavator purchase authorized during January 2013 Special Board Mtg.
02/06/13	EK00240	Construction Machinery		135,500	
Total 233-13 Excavator SWL				135,500	
234-13 Gatehs Generator TYL			**$82,000**	-	Replacement of aging propane generator and two propane tanks at Tyee Gatehouse. Propane tanks passed inspection July 2012 & will not be replaced. New budget estimate $42K. (S.Henson)
Total 234-13 Gatehs Gen-Propane TYL				-	

Southeast Alaska Power Agency
R&R PROJECT DETAIL
February 28, 2013

Date	Num	Vendor	FY13 BUDGET $	Amount	Description
235-13 SEAPA Servers - CLOSE			**$43,000**	-	Replace computer-system servers in SEAPA office. New servers installed by TekMate in December 2012. (S.Thompson) CLOSED DEC 2012
10/19/12	8937	TekMate Incorporate		27,222	
12/19/12	193623	Best Western Landing Hotel		594	
12/21/12	39082	TekMate Incorporate		11,666	
Total SEAPA Servers				39,482	
236-13 Wrangell Reactor			**$3,615,000**	-	Replace aging reactor in Wrangell with switchable reactors and capacitors. Study contracts issued in January. EPS performing study. (S.Henson)
09/10/12	26270	Ketchikan Daily News		246	
09/17/12	TX144551	Anchorage Daily News		249	
09/28/12	51409	Pilot Publishing, Inc.		40	
09/28/12	51430	Wrangell Sentinel		26	
10/19/12	441854	Juneau Empire		231	
02/14/13	213160211A	Scandia House Hotel		173	
02/22/13	34291	Commonwealth Associates, Inc.		7,574	
02/28/13	THO9358-20130:	"Bank of America		371	
Total 236-13 Wrangell Reactors				8,909	
237-13 Remote Brkr Rack. Devi			**$70,000**	-	Safety measure to protect personnel while racking a breaker. (S.Henson)
Total 237-13 Remote Brkr Rack. Device				-	
238-13 Replacement Winding S			**$895,000**	**-**	Spare generator winding for Swan Lake.
07/31/12	MK201207	Morris Kepler Consulting		3,327	
08/31/12	MK201208	Morris Kepler Consulting		880	
10/29/12	26552	Ketchikan Daily News		373	
11/07/12	448854	Juneau Empire		291	
11/25/12	TX164749	Anchorage Daily News		325	
12/15/12	52161	Pilot Publishing, Inc.		45	
12/15/12	52169	Wrangell Sentinel		30	
01/04/13	7004002934	Voith Hydro, Inc		84,723	
01/08/13	22079	Matsu Alaska Construction LLC		697	
01/08/13	623672	Alaska Marine Lines		935	
01/21/13	7004002960	Voith Hydro, Inc		169,445	
02/15/13	217768750	FedEx		56	
02/18/13	115276398	FedEx		71	
02/20/13	7004003022	Voith Hydro, Inc		127,084	
02/28/13	MK201302	Morris Kepler Consulting		1,610	
Total Replacement Winding SWL				389,892	

Southeast Alaska Power Agency
R&R PROJECT DETAIL
February 28, 2013

Date	Num	Vendor	FY13 BUDGET $	Amount	Description
240-13 Cooling Water TYL			**$199,688**	-	
08/31/12	MK201208	Morris Kepler Consulting		13,855	
02/28/13	MK201302	Morris Kepler Consulting		1,150	
Total Project				15,005	
241-13 Stream Gauge TYL			**$1,467,758**	**-**	
02/28/13	281	Sunrise Aviation Inc		585	
02/28/13	281	Sunrise Aviation Inc		685	
02/28/13	281	"First Bankcard		134	
02/28/13	281	"First Bankcard		1,675	
02/28/13	281	"Bank of America		1,088	
02/28/13	281	McMillen, LLC		3,735	
02/28/13	281	"Bank of America		478	
02/28/13	281	Best Western Landing Hotel		110	
02/28/13	281	Sunrise Aviation Inc		293	
02/28/13	281	Sunrise Aviation Inc		360	
02/28/13	281	"Bank of America		899	
02/28/13	281	Temsco Helicopters, Inc.		1,996	
Total 241-13 Stream Gauge TYL				12,037	
Total WIP R&R Capital Projects			$10,966,746	1,006,133	
TOTAL ALL R&R PROJECTS			**$11,411,246**	**1,737,215**	

SEAPA
Southeast Alaska Power Agency

FY2012
R&R PROJECT
215-12

Project Name: **Narrowband Radios**

Project Number: **215-12**

Project Description: Replacement of two-way radio systems to narrow band as mandated by FCC

Project Cost Estimate: $250,000

Project Start Date: July 2011

Project Completion Date: June 2012

Project Discussion: The FCC has mandated that by 1/1/13, all VHF transmitters shall operate narrowband (12.5 kHz or narrower). Gillespie Prudhon & Associates (GPA) recommends that these radios be changed to new models that comply with this mandate.

Project Cost Estimate Summary:

Item	FY12	FY13
Labor & Material	$225,000	$35,000
Total	$ 225,000	

Project Cost Estimate Discussion: GPA estimates the cost at $183,194 but may not have included all the radios in the system including the project operators. Therefore, the estimate was increased to $225,000.

Budget Amount Requested for FY2012: $225,000

Project Manager: Don Phillips

Submitted By: Dave Carlson/DonPhillips/S.Henson Date: 6/6/11

CEO Approval: DRC Date: 6/6/11

SEAPA Board Project/Budget Approval: Date: 06/23/2011, 06/27/2012

Awarded Contracts: (Enter contract # and award dates)
Material Contract: AP&T; PO12-33, $25,437.85

Date Project Closed: January 2013

Southeast Alaska Power Agency

FY2012
R&R PROJECT
215-12

PROJECT CLOSEOUT

The original estimate included repeaters at High Mountain and on the intertie. This was not part of the worked that was actually performed.

Older radios were replaced and newer models were reprogrammed by AP&T. Additional costs reflect the extra work required because of compatibility issues with marine terminal RTUs.

215-12 Narrowband Radios			**$35,000**		-
02/16/12	215	Ketchikan City of 334		$	818
05/15/12	1205170	Action Communications			3,192
10/20/12	34336	Northern Communications Co.			60
10/22/12	25940	Temsco Helicopters, Inc.			5,758
10/23/12	25939	Temsco Helicopters, Inc.			6,087
10/24/12	42934	Coastal Helicopters, Inc.			5,817
10/25/12	50869	Sunrise Aviation Inc			840
10/30/12	34359	Northern Communications Co.			42
10/30/12	17599	AP&T Wireless, Inc.			2,427
10/31/12	321383	Alaska Airlines Inc			57
10/31/12	TBPA201210	Thomas Bay Power Authority			706
11/14/12	17757	AP&T Wireless, Inc.			25,576
11/28/12	17799	AP&T Wireless, Inc.			909
11/30/12	TBPA201211	Thomas Bay Power Authority			101
12/19/12	17924	AP&T Wireless, Inc.			816
12/31/12	TBPA201212	Thomas Bay Power Authority			73
01/31/13	TBPA201301	Thomas Bay Power Authority			65
Total 215-12 Narrowband Radios					$ 53,344

Southeast Alaska Power Agency

MARCH 2013 DISBURSEMENTS

ACCOUNTS		TOTAL
Revenue Fund	$	535,145.95
R&R Fund	$	185,733.28
TOTAL	**$**	**720,879.23**

RECOMMENDED MOTION
I move to approve disbursements for the month of March 2013 in the amount of $720,879.23.

Invoice No.	Company (vendor)	Revenue Fund	R&R Fund
623672	Alaska Marine Lines	-	934.64
APCM201302	Alaska Permanent Capital Inc	2,116.83	
2392	Alaska Power Association	350.00	
ATC201304	Alaska Telephone Company	5,434.76	
13424	Allen Marine Tours	1,600.00	
TX190038	Anchorage Daily News	348.60	
AP&T201303	AP&T Wireless, Inc.	1,352.50	
2650172865	AT&T Alascom 5019	305.34	
1123084	AterWynne LLP	328.05	
1123086	AterWynne LLP	3,599.70	
1123087	AterWynne LLP	9,170.00	
196271	Best Western Landing Hotel	99.00	
196638	Best Western Landing Hotel	133.67	
196653	Best Western Landing Hotel	116.49	
BLUE201304	Blue Water Charter & Tackle	725.00	
5373768	Cisco WebEx LLC	49.00	
34290	Commonwealth Associates, Inc.	5,863.20	
34291	Commonwealth Associates, Inc.	-	7,574.00
22809	Control Engineers	870.00	
9408	DHittle & Associates, Inc.	1,320.00	
9409	DHittle & Associates, Inc.	6,600.00	
AKKET3799	Fastenal	40.64	
L13232-00	Federal Energy Regulatory Commission	26,922.00	
L13232-00	Federal Energy Regulatory Commission	19,230.00	
L13237-00	Federal Energy Regulatory Commission	26,752.88	
L13237-00	Federal Energy Regulatory Commission	19,109.23	
3516	Federal Energy Regulatory Commission 888	40.50	
115276398	FedEx	-	71.23
217768750	FedEx	-	56.05
166825	Frontier Shipping & Copyworks	68.75	
47442836	GCI 99001	405.70	
58505249	GE Capital	140.00	
58514358	GE Capital	595.00	
9000	Greater Ketchikan Chamber of Commerce	1,000.00	
9024	Greater Ketchikan Chamber of Commerce	380.00	
61494B	HDR Alaska Inc.	5,968.13	
2920	I Even Do Windows	300.00	
95992	Jud's Office Supply	374.29	
95995	Jud's Office Supply	9.12	

Invoice No.	Company (vendor)	Revenue Fund	R&R Fund
460846	Juneau Empire	491.98	
26976	Ketchikan Daily News	440.75	
26988	Ketchikan Daily News	94.30	
27065	Ketchikan Daily News	44.80	
EngCompPad	Ketchikan Daily News	319.50	
KGB201304	Ketchikan Gateway Borough	3,737.25	
KPUT201303	Ketchikan Public Utilities 2417	749.25	
KPU201212	Ketchikan Public Utilities 334	-	537.00
LK201304	LK Storage	148.20	
2990	McMillen, LLC	13,333.03	2,760.00
MK201302	Morris Kepler Consulting	2,542.49	
38707	Nolan Center	1,155.00	
294605	Northland Services, Inc.	98.06	
13038046	NRECA 775670 RSP	46,391.79	
13038046A	NRECA 798330 RSP Admin	428.15	
52686	Pilot Publishing, Inc.	206.00	
52956	Pilot Publishing, Inc.	42.25	
16490218	R&M Consultants Inc	-	1,963.92
471	Ray Matiashowski & Assoc.	4,000.00	
40996	Refiner's Roast Coffees, LLC	666.70	
38148	Satellite & Sound Inc	1,659.00	
222148	Satellite & Sound Inc	1,659.00	
213160211A	Scandia House Hotel	-	173.00
221100309A	Scandia House Hotel	103.00	
314366	SE Business Machines	365.00	
INV130309	Segrity LLC	-	24,431.03
4504	Southeast Conference	190.00	
39966	TekMate Incorporated	62.50	
2013 Q2	TekMate Incorporated	154.15	
TEK201304	TekMate Incorporated	2,100.00	
26138	Temsco Helicopters, Inc.	1,749.60	
26155	Temsco Helicopters, Inc.	887.20	
26157	Temsco Helicopters, Inc.	2,275.20	
26161	Temsco Helicopters, Inc.	4,883.30	
26162	Temsco Helicopters, Inc.	887.20	
50656301	Tetra Tech Inc	8,030.10	
50656302	Tetra Tech Inc	-	2,928.55
50656303	Tetra Tech Inc	11,490.50	
TBPA201301	Thomas Bay Power Authority	11,370.24	64.90
132012	Tongass Engineering	-	2,073.75
132031	Tongass Engineering	3,417.25	
BF10052200024	USDA Forest Service	77,100.67	
102095	Van Ness Feldman, PC	518.62	
7004003022	Voith Hydro, Inc	-	127,084.05
DNR201303	Wells Fargo Bank-Corporate Trust	75,000.00	
WF201303	Wells Fargo Bank-Corporate Trust	112,983.98	
209250213	Western Electrical Services	7,370.00	
52673	Wrangell Sentinel	136.50	
52953	Wrangell Sentinel	32.50	
	Bank of America	7,912.25	1,226.47
	Employee Reimbursement	55.00	
		535,145.95	185,733.28
	Total Disbursements	$720,879.23	

Southeast Alaska Power Agency

CEO Report

DATE: April 18, 2013

TO: SEAPA Board of Directors

FROM: Trey Acteson, CEO

Best Practices: SEAPA continues to make good progress in our efforts to implement "Best Practices".

- We are currently developing a five-year Capital Improvement Plan (CIP) that will be discussed in greater detail during the June board/budget meeting. In short, it will provide the following benefits:
    - A better mechanism to forecast capital projects or equipment to be purchased beyond a single budget cycle
    - Allow us to rank order of preference and prioritize appropriately
    - Enable a longer term perspective with regard to project financing and cash flows
    - Timetables for construction and project completion
    - Project justification
    - Explanation of project costs

  Since we utilize a June 30 fiscal year budget process, projects typically span at least two budget cycles during a single construction season. It is important that people understand the lifecycle of project development and this will be a useful tool toward that goal. This will be an ongoing process and will be refined over time.
- As noted in my previous report, we initiated a Request for Proposals to conduct competitive bidding of the SEAPA Insurance Program in coordination with our insurance consultant Warren, McVeigh & Griffin, Inc. It has been more than five years since a formal competitive bid process for insurance and insurance brokerage services has been conducted and this will help ensure due diligence through a controlled competition. The deadline for proposal submittals was April 15 and evaluations are in progress.
- With regard to insurance related risk management, there have been inquiries regarding Director's use of private aircraft to attend meetings or visit the project facilities. Our insurance does not cover these activities unless it is on a commercial carrier. Further, it would not be prudent to reimburse expenses for Directors using private aircraft for travel because it would indicate we support the practice. Directors that do not travel via commercial transportation do so at their own risk and SEAPA assumes no liability.

Public Relations: As directed by the Board, we have dedicated significant time to shaping a positive public relations campaign. I believe this is a great start in building strong public relations with our member communities and we will continue to seek out new opportunities. Here are some highlights since our last meeting:

- We have developed messaging that aligns with our mission statement. This has been integrated into useful instruments for display and distribution.

- We have secured a booth at the Community Fair on April 27th at Kayhi and encourage everyone to attend this great event. Stop by and visit with the SEAPA staff; we'll be manning the booth throughout the day.
- SEAPA attended the City of Saxman Council meeting on April 17th and provided a PowerPoint presentation summarizing our current initiatives.
- We provided a press release following the RFO workshop highlighting the process and excellent turn-out.
- We are being more proactive with regard to rebutting misinformation in the media and have requested corrections.
- We continue to attend and participate in various community-related meetings and events. This is helping to increase our public exposure in Ketchikan. Our intent is to expand this effort to the northern communities.
- We have scheduled a boat tour to Swan Lake to help showcase the proposed Swan Lake Reservoir Expansion Project. This is a great opportunity for people to learn more about SEAPA's facilities and our ongoing efforts for hydro development in the region.
- We have invited the mayors and vice mayors from our member utility communities to our April 25th board meeting to help facilitate more involvement and a better understanding of SEAPA's contribution.

Swan Lake Reservoir Expansion: The board has received periodic updates regarding this year's legislative session and as expected the capital budget took a shellacking. Swan Lake Reservoir Expansion was not funded and as previously noted we will enter a subsequent request through the renewable energy fund Round VII. It will be necessary to offer a 50% match when applying for this alternative grant funding mechanism to improve our ranking. The level of legislative funding support for Round VII will not be determined until about this same time next year.

What this means is that FY2014 activities will need to come from allocated DCCED funds of about $575K and the balance of approximately $900K from SEAPA funds. We'll discuss budget at our next meeting, but the point of emphasis is we need to keep this project moving forward. We have worked hard to accelerate this project, which will help offset diesel generation. We are at a critical juncture where we need to initiate a FERC license amendment which requires additional investment and commitment of resources. It would be extremely detrimental to our relationship with FERC and the Agencies if we do not keep with our stated schedule. We have prepared a resolution for the board's consideration under new business to assure staff that the board remains committed to moving forward without delay. Mr. Wolfe has provided additional project information in his report.

Request for Offers: SEAPA hosted an RFO workshop on April 10th which was well attended, and included representatives from the Alaska Energy Authority and the USFS. We have included a high-level list of questions and answers that came out of the meeting (Attachment 1). My overall impression is that we will likely receive a variety of offers under each of the four options identified in the RFO. The deadline for interested parties to submit their letter of intent to offer was April 15th.

Kake-Petersburg Intertie Project (KPI): The KPI project is moving forward as described in the Memorandum of Understanding (MOU) between AEA, IPEC, and SEAPA, a copy of which was included in the September 2012 board packets.

An Environmental Impact Statement (EIS) update meeting will be (was) held on April 19 to discuss ongoing NEPA activities, Proposed Action, Roadless Areas, Temporary Roads, Timber and Transportation Resources Reports, and Schedule. This is an extremely complex permitting process that has multiple routing options and is further complicated by the independent DOT road development project. We've attached a high-level update for your review (Attachment 2).

Agency Financial Perspective: Revenues for FY13 are down as a result of October 2012 being one of the driest on record. This is a poignant reminder that our project inflows are very volatile and a few dry weeks at the wrong time of year can have a significant impact on regional hydro reserves. The good news is that we appear to have turned the corner at Swan and diesel generation will be less likely in the coming months. Reductions in anticipated administrative and operating expense will offset lower sales.

You will begin to see project expenditures accelerate going into the end of the fiscal year as it coincides with the beginning of the construction season. The FY13 R&R budget was definitely aggressive and I have to compliment the SEAPA staff for an outstanding job in getting numerous projects out for bid and ready for execution. There is an incredible amount of work that takes place behind the scenes to make it all happen. In the future, we'll orchestrate a more levelized approach to R&R activities.

Staffing: At our last meeting I outlined the need for additional support necessary to efficiently execute our objectives. ***At this time I am looking for direction from the board to proceed with recruitment for two positions.***

1. Engineer I
2. Administrative Assistant

Salaries will be appropriately based on qualifications (knowledge, skills, and experience). I have included my previous assessment of four specific areas that should be considered to enhance the organization. The plan is to get the aforementioned positions filled and then determine if additional resources are necessary.

1. Records Management: SEAPA does not currently have a records retention policy. This will require reviewing and cataloging all stored information, which is an enormous time-consuming endeavor. Many documents are complex and will require existing staff support for assessment or supplemental expert assistance. I see this as a multi-year process to be led by someone in-house. Ms. Thompson has led much of this effort up to this point, but her expertise and contribution supporting critical administrative functions is much more valuable to the organization and should be her primary focus.

2. Grant Administration: SEAPA is currently managing three grants totaling approximately $8MM. It is likely that we will receive additional grants in the future and they all require detailed tracking and have very specific reporting requirements. Ms. Key has taken on these duties in addition to her regular responsibilities as our Controller. She has done an excellent job getting the structure in place, but I believe this detracts from her core functions.

3. Project Management: SEAPA is currently managing approximately $9MM in renewal and replacement projects. Mr. Henson has provided an extensive list in his operations update report that clearly illustrates the magnitude of the effort. It would greatly benefit the organization to have additional project management skills in-house, allowing

retention of valuable institutional knowledge that is gained from internal project management.

4. Technical Support: SEAPA has a strong interest in maintaining reliable systems throughout our facilities. We could fully utilize a technical expert in SCADA, Comms, and IC&E systems, etc. This would round-out our technical staff and eventually reduce reliance on professional services contracts. Mr. Wolfe currently spearheads much of this effort, but some of our larger projects are gaining momentum and will require considerable focus over the next few years. It's important to note that technical experts with the desired skillset are in very high demand and attracting qualified candidates will be challenging.

<u>Presentation Introductions:</u> During our last board meeting I made a commitment to bring in experts to provide additional background on the Agency for the benefit of the board and leaders of our member utility communities. The following people will be presenting:

Joel Paisner (SEAPA legal counsel) will provide an overview of the evolution to SEAPA.

John Heberling (D. Hittle & Associates) will describe the evolution of the SEAPA R&R plan, reserve levels, and provide an update on the latest R&R plan revision (Attachment 3).

Allen Dashan (SEAPA financial advisor) will provide a financial overview of SEAPA, its current projects, and considerations for new project financing.

Attachments:

(1) RFO Workshop Q&A
(2) KPI Progress Report
(3) Renewals and Replacement Plan

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The Southeast Alaska Power Agency (SEAPA)
Request for Offers of Power and Energy Workshop
Meeting Summary | April 10, 2013

ATTENDANCE:

Marty Olson	SNC-Lavalin
Andy Donato	Ketchikan Public Utilities
Tim McConnell	Ketchikan Public Utilities
Gene Therriault	Alaska Energy Authority
Barbara Stanley	U.S. Forest Service
Bryan Oakland	AMERESCO
Bob Newell	City of Ketchikan
Jason Custer	City of Saxman
David Landis	Cape Fox Corporation
C. Paul Bryant	Metlakatla Power & Light
Paul Slenkamp	Alaska Mental Health
Trey Acteson	SEAPA
Dick Coose	SEAPA Board Member/Ketchikan City Council Member
Eric Wolfe	SEAPA
Sharon Thompson	SEAPA
Robert Venables (telephonic participation)	Southeast Energy Conference
Karl Reiche (telephonic participation)	Alaska Energy Authority
Larry Edwards (telephonic participation)	GreenPeace

Background and Meeting Objectives

A Request for Offers of Power and Energy (RFO) Workshop was held on April 10, 2013 to provide potential applicants with additional information and afford them the opportunity to ask questions of SEAPA staff. After introductions during the informal meeting, SEAPA staff highlighted the intent of the RFO, roles of the Alaska Energy Authority (AEA), SEAPA, and the Department of Commerce, Community & Economic Development (DCCED) Grant, and discussed the schedule of the RFO process. A PowerPoint presentation covering the existing hydro resource load balance, intent of the various options outlined in the RFO, and how it fits the Southeast Alaska Region was discussed. Details covering the four options provided under the RFO, including the requirements for the submittals under each option, were also discussed. A copy of the PowerPoint presentation is attached and will be posted on SEAPA's website at www.seapahydro.org.

After each session during the Workshop, potential applicants were provided the opportunity to ask questions, which were responded to by SEAPA staff. The following is a summary of the Question and Answer sessions:

<u>Question and Answer Summary</u>

	Question	Response
1.	How broad is the region that SEAPA envisions serving? What is the overall vision?	SEAPA currently serves the interconnected communities of Ketchikan, Wrangell, and Petersburg. We envision that area will expand in the future and include Kake and Metlakatla.
2.	Does SEAPA plan to release a short list of those individuals or entities who submitted intents to bid?	No.
3.	Is it correct that SEAPA specified a clarification deadline of August 31, 2014 and if so, why is there such a substantial window of time for preparing submittals?	That date is correct and a large window of time allows SEAPA some flexibility in forecasting given the unknowns of load growth. This is a request for offers of power and energy, not a call for power, which generally has a window of 3-5 months for bidders to prepare submittals.
4.	If SEAPA does not plan to release a short list, would it consider releasing a generic list of the different types of technologies who submit intents to bid?	It is important to preserve confidentiality early in the process so interested parties have some protection to develop what might be unique ideas. SEAPA may release a high level summary such as how many hydro vs. thermal applicants, but that will be determined at a later date.
5.	Will SEAPA give interested bidders some idea of projects SEAPA may be considering developing and building itself rather than through partnership with an IPP?	Information on projects SEAPA may be currently engaged in or are considering are discussed in SEAPA's board meetings, which the public is provided notice of, and available on SEAPA's website at www.seapahydro.org. SEAPA's regional perspective means projects may be vetted from Kake to Metlakatla.
6.	Is there any opportunity for anyone to make an offer who does not submit a notice of intent to offer by April 15, 2013?	The Notice of Intent to Offer is non-binding, but any interested party that is even contemplating developing something should submit their intent to offer by April 15, 2013 to become part of the RFO process. It is possible that another RFO could be issued in the future.
7.	Do you have to submit one letter of intent per project?	No. You can submit one letter of intent form and on that form list all the projects you are contemplating, or you can submit each one on separate letter of intent forms.
8.	Various questions were asked during SEAPA's staff's powerpoint presentation specific to the slides presented.	Staff's PowerPoint presentation is attached to these meeting notes for reference.

9.	Is SEAPA's RFO a serious request for offers?	Yes, SEAPA is very serious about the RFO and spent several months developing a flexible process to help fulfill anticipated load growth in the region. The State of Alaska has also endorsed this competitive process as evidenced by their letter, which is attached to the RFO document, and the DCCED grant.
10.	There's some concern that there is not a clear selection process in the RFO as guiding principles are not weighted. Would SEAPA consider using a third-party analyst?	The RFO asks for price, which is an indicator of an evaluation process.
11.	Is price the only criteria SEAPA will use?	No.
12.	How are other criteria weighted?	Criteria is not weighted in the traditional sense. This is not a call for power. SEAPA needs to consider whether the projects offered are good for each of its member utilities so the evaluation will be a process, which includes a lot of moving parts.
13.	It appears the RFO requires a much higher level of information than is required by other procurement processes. Why does SEAPA need all the additional information?	Because SEAPA assumes the majority of the risk. The details in a finance plan for example are SEAPA's way of managing the risk to evaluate whether a project has merit.
14.	There's no provision in the RFO for liquidated damages.	The RFO is simply an offer to enter into negotiations. It is not a contract. Those terms could be embedded in the contractual arrangement that follows the process.
15.	So would you require that liquidated damages be a feature of an agreement down the road?	It depends on the project and the potential impact. SEAPA will endeavor to enter into mutually beneficial decisions and agreements for any projects it contemplates after the projects are assessed.
16.	Can you include in the summary of the notes of this meeting the emails addresses of the participants of the meeting?	Because there are some people that may show an interest in submitting an intent that are not a part of the Workshop, participants at the Workshop have the opportunity to request the email address from other participants after the meeting. SEAPA does not want to distribute a list of email addresses that may be limited to the group attending the Workshop.

Mr. Acteson closed the meeting noting that it is SEAPA's intent to do what is best in the long-term interest of the region.

The meeting ended at 12:20 p.m. on April 10, 2013.

Grantee: Southeast Alaska Power Agency (SEAPA)

Project Name: Kake Petersburg Intertie Project (KPI)

Grant #: 2195414

Period of Report: January 1 to March 31, 2013

Project Activities Completed

Environmental Impact Statement:

Tetra Tech has been contracted with for the EIS and other permitting work.

Tetra Tech completed the following tasks during this period:

- Received comments on the Draft EIS Chapters 1 and 2. Comments were provided by multiple Forest Service staff and raised some potential concerns with respect to the project schedule.
- Prepared a draft briefing paper for internal use by the Forest Service. The briefing paper represents one of four key milestones in the Forest Service's internal project review process. This paper responds to the NEPA-related concerns raised by the Forest Service review team, including a revised purpose and need statement, a revised discussion of the issues driving the EIS discussion, and a reconfiguration of the project alternatives.

Tetra Tech resource specialists continued preparing EIS Chapter 3 (Affected Environment and Environmental Effects), which addresses the potential impacts of the proposed alternatives by environmental resources.

D. Hittle Contract and Additional Work: A contract has been entered into with D. Hittle to update their January 2010 report to take into consideration the effects of inflation and other changes since the report was first issued. We expect to receive the updated report during the next reporting period.

Steering Committee:The KPI Steering Committee has been formed. The membership of the committee includes representatives from: the Cities of Kake and Petersburg, the Organized Village of Kake, the Southeast Conference, IPEC, and SEAPA. The Mayor of Kupreanof is included on the mailing list. The role of the committee is to enhance communications with the communities and participants and to receive their advice. The second meeting was held in Juneau on February 27, 2013

Existing or Potential Problems:The Forest Service review of the Draft Chapters 1 and 2 raised a number of potential concerns that have affected the schedule in the short-run. We are presently working through those issues and are hopeful there are not overall schedule impacts.

Activities Targeted for Next Reporting Period

Environmental Impact Statement:

- Continue to work with the Forest Service to address and resolve the issues identified above.
- Revise the project schedule to reflect current and anticipated short term delays.
- Prepare the Preliminary Draft EIS.
- Coordinate with D. Hittle regarding updated cost information and detail for the proposed marine crossings; follow up on whether more exact crossing information is available

- Contact the Forest Service Visuals Resource Specialist to determine which areas may be used for visual simulations and schedule a time to obtain the photos to be used in the analysis for the EIS section.

D. Hittle Report:Oncea few of the Forest Service issues are resolved, the report will be completed. We expect this to occur in the next several weeks.

Steering Committee:The next steering committee meeting will be scheduled when the D. Hittle updated report is received.

Engineering and Environmental Work RFPs:Work will begin on preparing RFPs for engineering design and any additional environmental and permitting and compliance work that may be necessary as the project moves forward. Presently we expect this activity to start late this year.

Renewals and Replacement Plan

April 17, 2013
DRAFT REPORT

Prepared for
The Southeast Alaska Power Agency
Ketchikan, Alaska

by

DHITTLE & ASSOCIATES, INC.
Engineers and Consultants

Lynnwood, Washington

Southeast Alaska Power Agency
Renewals and Replacement Plan

Table of Contents

Southeast Alaska Power Agency
Renewal and Replacement Plan

Introduction

This renewal and replacement plan (the “R&R 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 R&R Plans every five years in accordance with the provisions of its loan and indenture of trust agreements. Currently, no specific requirements for the R&R Plan are defined in any specific documents or agreements; however, SEAPA has determined that reviewing its future renewal and replacement expenditures in a similar manner to the previous R&R Plans is a useful planning effort. As such, this R&R Plan has been prepared employing the same approach as used in the 2002 and 2007 R&R Plans.

In 2002 when the FDPPA was established, the Loan and Security agreement with the State of Alaska established the Repair, Replacement, Risk and Reclamation Reserve (5R) Fund. Specified deposit amounts to the 5R Fund were required in order to maintain a minimum balance in the fund (the 5R Fund Requirement) as well as fund renewal and replacement (R&R) expenses as they were incurred through the remainder of the term of the Power Sales Agreement. Many of the provisions related to the 5R Fund and the 5R Fund Requirement were retained in the Indenture of Trust between the FDPPA and Wells Fargo Bank when the FDPPA issued its Electric Revenue Refunding bonds in October 2004. At the time SEAPA was established in February 2009, the 5R Fund and the 5R Fund Requirement were no longer specified in any loan documents or agreements.

The 5R Fund was used to retain funds for uninsured risks as well as to accumulate funds to pay R&R expenses. At the present time, SEAPA has a Self Insured Risk fund to retain funds for uninsured risks and a Dedicated R&R Fund to pay the costs of budgeted and approved R&R expenses. In addition to these two funds, there is a Required R&R Fund with a balance of approximately $1 million. For the purpose of this R&R Plan, it is generally considered that the amount in these three funds in total is the R&R Fund.

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 R&R Plan is to establish long-term estimated costs of R&R activities that will be needed to keep the Projects fully functional and in good operating condition over the next 30 years. The R&R Plan also includes a schedule of annual payments to be made to SEAPA’s 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 R&R 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 R&R Plan should be addressed in formulating near-term budgets and as necessary, the R&R Plan should be adjusted to appropriately reflect the operating condition of the Projects.

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 22.5 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 22.5 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[1] 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.

[1] 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.[2] Devine, Tarbell and Associates and D&L conducted an updated review of the Four Dam Pool facilities in 2006[3]. D&L submitted a report to SEAPA summarizing the results of its 2012 studies[4].

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 recently and are of sufficient detail to serve as the basis for the R&R 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 2042 has been developed. In addition to these long-

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[2] *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.
[3] *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.
[4] *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.

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 Kepler, D&L and SEAPA during the 2012 condition assessment.

For the purpose of the R&R 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 2042, 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 R&R Plan are as follows:

- General inflation of 2.5% per year
- R&R costs will escalate at 120% the rate of general inflation[5]
- Annual interest earnings rate of 2.5% on invested funds[6]
- Discount rate of 2.5%[7]

[5] Based on a review of historical relationship between construction cost increases and general inflation between 2003 and 2012.
[6] Although the assumed interest earnings rate is higher than currently experienced by SEAPA, it is relatively low compared to rates experienced in past years.
[7] 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 in to six primary categories. Detailed costs for each Project are shown in Appendix A. For the purpose of the R&R 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 2042 are estimated to be $108,265,000 at 2012 cost levels. Of this amount, $64,622,000 or 59.7% is for the replacement of transmission lines and submarine cables. Another $15,156,000 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. It should be noted that any new projects that SEAPA constructs or obtains will require future R&R expenditures in addition to those costs shown in Table 2.

Table 1
Estimated Total R&R Expenditures – All Projects
Fiscal Years 2013 - 2042
(2012 Cost Levels - $000)

Fiscal Year	Turbines & Generators	Civil Structures	Transmission Lines	Substations & Switchyards	Rolling Stock	Other	Total
2013	-	82	-	520	42	167	811
2014	141	-	-	557	-	95	793
2015	-	-	-	10	25	-	35
2016	-	-	-	290	-	183	473
2017	-	-	-	-	-	37	37
2018	-	-	-	85	8	-	93
2019	2,720	-	-	1,383	261	-	4,364
2020	-	-	-	261	-	82	343
2021	-	-	-	305	84	90	479
2022	-	-	-	-	340	51	391
2023	-	-	-	470	802	-	1,272
2024	2,318	2,006	9,400	6,073	-	1,582	21,379
2025	-	-	-	1,674	-	-	1,674
2026	1,062	-	-	-	129	-	1,191
2027	-	-	-	-	-	152	152
2028	-	-	-	-	8	239	247
2029	-	-	-	65	-	318	383
2030	597	-	-	122	33	-	752
2031	-	-	-	225	-	597	822
2032	-	-	-	-	-	2,332	2,332
2033	-	-	-	270	-	692	962
2034	3,300	1,829	54,252	1,455	37	1,195	62,068
2035	-	-	-	125	42	299	466
2036	658	-	970	381	62	105	2,176
2037	-	-	-	-	-	-	-
2038	-	-	-	-	12	-	12
2039	-	-	-	165	-	-	165
2040	3,190	-	-	-	250	82	3,522
2041	-	-	-	470	38	37	545
2042	-	-	-	250	25	51	326
Total	$ 13,986	$ 3,917	$ 64,622	$ 15,156	$ 2,198	$ 8,386	$ 108,265
% of Total	12.9%	3.6%	59.7%	14.0%	2.0%	7.7%	100.0%

Table 2
Total Estimated Total R&R Expenditures
Fiscal Years 2013 – 2042

(2012 Cost Levels - $000)

	Swan Lake	Tyee Lake	Total
Generation Facilities	$ 13,636	$ 12,653	$ 26,289
Transmission Facilities	13,158	66,620	79,778
Rolling Stock	337	1,861	2,198
Total	$ 27,131	$ 81,134	$ 108,265

Figure 1
Project Percentage of Total Estimated Total R&R Expenditures
Fiscal Years 2013 – 2042

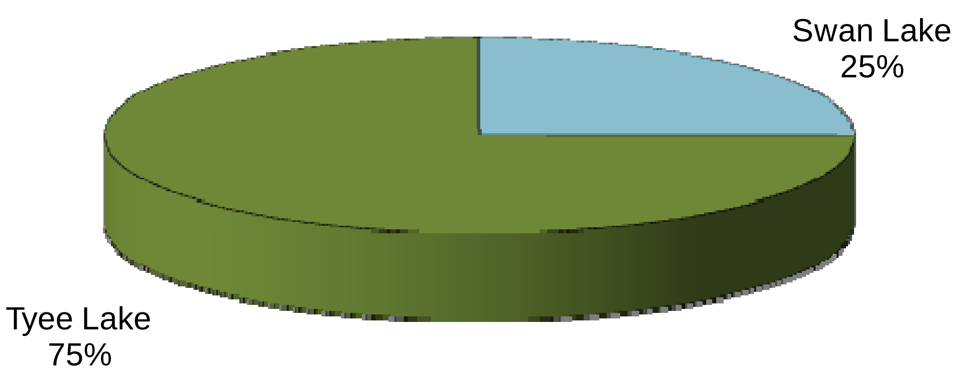


Table 3 shows the estimated R&R expenditures with assumed inflation applied at an effective rate of 3.0% per year (120% of 2.5%). The total inflated R&R expenditure requirement is $185,091,000 through 2042, as shown in Table 3.

Table 3
Estimated Total Long-Term R&R Expenditures – All Projects
Fiscal Years 2013 - 2042
(Nominal Cost Levels w/Inflation - $000)

Fiscal Year	Turbines & Generators	Civil Structures	Transmission Lines	Substations & Switchyards	Rolling Stock	Other	Total
2013	-	82	-	520	42	167	811
2014	145	-	-	574	-	98	817
2015	-	-	-	11	27	-	38
2016	-	-	-	317	-	200	517
2017	-	-	-	-	-	42	42
2018	-	-	-	99	9	-	108
2019	3,248	-	-	1,651	312	-	5,211
2020	-	-	-	321	-	101	422
2021	-	-	-	386	106	114	606
2022	-	-	-	-	444	67	511
2023	-	-	-	632	1,078	-	1,710
2024	3,209	2,777	13,012	8,406	-	2,190	29,594
2025	-	-	-	2,387	-	-	2,387
2026	1,560	-	-	-	189	-	1,749
2027	-	-	-	-	-	230	230
2028	-	-	-	-	12	372	384
2029	-	-	-	104	-	510	614
2030	987	-	-	202	54	-	1,243
2031	-	-	-	383	-	1,016	1,399
2032	-	-	-	-	-	4,089	4,089
2033	-	-	-	488	-	1,250	1,738
2034	6,139	3,402	100,925	2,707	69	2,223	115,465
2035	-	-	-	240	80	573	893
2036	1,299	-	1,914	752	122	207	4,294
2037	-	-	-	-	-	-	-
2038	-	-	-	-	25	-	25
2039	-	-	-	356	-	-	356
2040	7,086	-	-	-	555	182	7,823
2041	-	-	-	1,075	87	85	1,247
2042	-	-	-	589	59	120	768
Total	$ 23,673	$ 6,261	$ 115,851	$ 22,200	$ 3,270	$ 13,836	$ 185,091
% of Total	12.8%	3.4%	62.6%	12.0%	1.8%	7.5%	100.0%

Near-term R&R

In the D&L report, recommendations were provided regarding R&R tasks that should be undertaken over the next few years. These tasks were a result of discussions with facility operators and evaluation of the condition of the Project facilities. The total cost of these near-term efforts is $2,867,000 of which approximately $900,000 is presently included in the fiscal year 2013 capital improvement budget. SEAPA has also prepared a five year projection of renewal and replacement expenditures. SEAPA's R&R budget includes R&R expense job costs, work-in-process capital projects and future R&R projects. Included in the future R&R capital projects is the estimated cost of $13.2 million for the Swan Lake reservoir expansion. 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

	2013	2014	2015	2016	2017
R&R Expense Job Costs	$ 504,506	$ 145,000	$ 145,000	$ 145,000	$ 145,000
Work in Process R&R Capital Projects	2,040,851	6,331,721	2,007,000	-	-
Future R&R Capital Projects	575,000	1,929,000	5,385,000	7,404,448	100,000
Total	$ 3,120,357	$ 8,405,721	$ 7,537,000	$ 7,549,448	$ 245,000

Total R&R Costs

For the purpose of the R&R 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 each year 2013 through 2017, and override the long-term-expenses that are shown to occur in those years. In addition, an allowance of $800,000 (2012 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 2013 - 2042
(Nominal Cost Levels w/Inflation - $000)

Fiscal Year	Total Long-Term (1)	Near Term (2)	Normal R&R (3)	Relicensing (4)	Total
2012					
2013	$ -	$ 3,120	$ -	$ -	$ 3,120
2014	-	8,406	-	-	8,406
2015	-	7,537	-	-	7,537
2016	-	7,549	-	-	7,549
2017	-	245	-	-	245
2018	108	-	35	-	143
2019	5,211	-	35	-	5,246
2020	422	-	35	-	457
2021	606	-	35	-	641
2022	511	-	35	-	546
2023	1,710	-	50	-	1,760
2024	29,594	-	50	-	29,644
2025	2,387	-	50	-	2,437
2026	1,749	-	50	-	1,799
2027	230	-	50	-	280
2028	384	-	65	1,160	1,609
2029	614	-	65	1,190	1,869
2030	1,243	-	65	1,220	2,528
2031	1,399	-	65	1,250	2,714
2032	4,089	-	65	1,280	5,434
2033	1,738	-	75	1,310	3,123
2034	115,465	-	75	-	115,540
2035	893	-	75	-	968
2036	4,294	-	75	-	4,369
2037	-	-	75	-	75
2038	25	-	75	-	100
2039	356	-	75	-	431
2040	7,823	-	75	-	7,898
2041	1,247	-	75	-	1,322
2042	768	-	75	-	843
Total 13-42	$ 182,866	$ 26,857	$ 1,500	$ 7,410	$ 218,633

footnotes to Table 5

(1) See Table 3. Near-term costs are assumed to preclude the long-term costs in 2013 through 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 (2012 cost levels) for each of six years for FERC relicensing costs.

As can be seen in Table 5, total R&R expenses through 2042 are estimated to be $218,633,000. An amount of $1,500,000 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 Project R&R Fund as part of the annual operating budget; (2) funds on deposit currently in the R&R Fund; and (3) accrued interest earnings on monies in the R&R Fund. Each year, an amount can be deposited in the R&R Fund so that, when combined with all other funds, sufficient funds are available to pay the total R&R expenditures as they are incurred in each year.

In the 2002 R&R Plan, it was assumed that a portion of the costs related to transmission system R&R costs (transmission lines, submarine cables, substation and switchyards) 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 2013 R&R 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 financed in the years in which they occur.

Table 6 provides a funding plan for the Project R&R costs shown in Table 5 on an annual basis through 2042. The funding plan shown in Table 6 is based on a single R&R fund concept for illustrative purposes.

Table 6
Estimated Total R&R Funding
Fiscal Years 2013 - 2042
(Nominal Cost Levels w/Inflation - $000)

Fiscal Year	Total Expenditures (1)	Annual O&M Cont. (2)	Debt Funded (3)	Net R&R Fund Funded (5)	Total Funding
2013	3,120	-	-	3,120	3,120
2014	8,406	-	-	8,406	8,406
2015	7,537	-	-	7,537	7,537
2016	7,549	-	-	7,549	7,549
2017	245	-	-	245	245
2018	143	-	-	143	143
2019	5,246	-	-	5,246	5,246
2020	457	-	-	457	457
2021	641	-	-	641	641
2022	546	-	-	546	546
2023	1,760	-	-	1,760	1,760
2024	29,644	-	13,012	16,632	29,644
2025	2,437	-	-	2,437	2,437
2026	1,799	-	-	1,799	1,799
2027	280	-	-	280	280
2028	1,609	-	-	1,609	1,609
2029	1,869	-	-	1,869	1,869
2030	2,528	-	-	2,528	2,528
2031	2,714	-	-	2,714	2,714
2032	5,434	-	-	5,434	5,434
2033	3,123	-	-	3,123	3,123
2034	115,540	-	100,925	14,615	115,540
2035	968	-	-	968	968
2036	4,369	-	-	4,369	4,369
2037	75	-	-	75	75
2038	100	-	-	100	100
2039	431	-	-	431	431
2040	7,898	-	-	7,898	7,898
2041	1,322	-	-	1,322	1,322
2042	843	-	-	843	843

(1) Estimated R&R expenditures. See Table 5.
(2) No amounts are currently required to be paid into the R&R Fund.
(3) Transmission related R&R costs assumed to be funded with new debt.
(5) R&R costs funded from amounts in the 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 R&R Fund. Monies accrued in the 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 R&R Fund through the entire period, 2013 through 2042, to fund R&R expenditures and maintain a minimum balance of $10,000,000 (Self Insured Risk Fund) in the R&R Fund, the annual payment requirement is as follows:

Table 7
Required Annual Payment to 5R Fund for R&R Costs
Fiscal Years 2013 – 2042

Fiscal Years 2013 through 2022	$ 3,073,000
Fiscal Years 2022 through 2027	$ 3,073,000
Fiscal Years 2028 through 2032	$ 3,273,000
Fiscal Years 2033 through 2042	$ 3,173,000

Based on the annual payments shown in Table 7, the balance of the R&R Fund on an annual basis is estimated as shown in Table 8. The initial balance in the fund is estimated to be $17,434,000 remaining at the end of fiscal year 2012. Included in this amount is $6,220,599 in the Dedicated R&R Projects Fund, $1,000,309 in the Required R&R Fund and $10,213,490 in the Self-Insured Risk Fund. Interest earnings calculated for the R&R Fund as shown in Table 8 assume that the balance in the fund does not exceed the projected yearend balance.

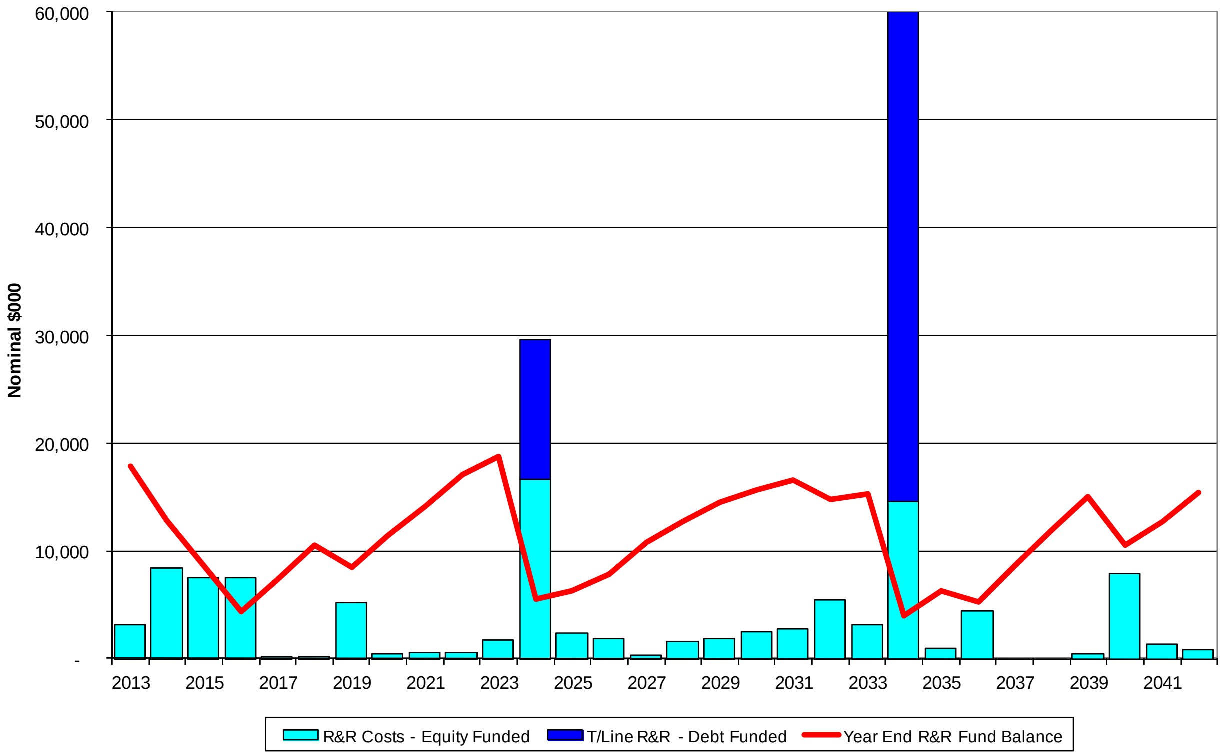
Table 8
Combined R&R Fund Annual Activity and Balance
Fiscal Years 2013 - 2042
(Nominal Cost Levels w/Inflation - $000)

Fiscal Year	Annual Deposit to R&R Fund from O&M Budget (1)	Deposit to R&R Fund (2)	Less: Net R&R Costs (3)	Interest Earnings (6)	Balance (Year End)(7)
2012					17,434
2013	-	3,073	3,120	435	17,822
2014	-	3,073	8,406	379	12,868
2015	-	3,073	7,537	266	8,670
2016	-	3,073	7,549	161	4,355
2017	-	3,073	245	144	7,327
2018	-	3,073	143	220	10,477
2019	-	3,073	5,246	235	8,539
2020	-	3,073	457	246	11,401
2021	-	3,073	641	315	14,148
2022	-	3,073	546	385	17,060
2023	-	3,073	1,760	443	18,816
2024	-	3,073	16,632	301	5,558
2025	-	3,073	2,437	147	6,341
2026	-	3,073	1,799	174	7,789
2027	-	3,073	280	230	10,812
2028	-	3,273	1,609	291	12,767
2029	-	3,273	1,869	337	14,508
2030	-	3,273	2,528	372	15,625
2031	-	3,273	2,714	398	16,582
2032	-	3,273	5,434	388	14,809
2033	-	3,173	3,123	371	15,230
2034	-	3,173	14,615	238	4,026
2035	-	3,173	968	128	6,359
2036	-	3,173	4,369	144	5,307
2037	-	3,173	75	171	8,576
2038	-	3,173	100	253	11,902
2039	-	3,173	431	332	14,976
2040	-	3,173	7,898	315	10,566
2041	-	3,173	1,322	287	12,704
2042	-	3,173	843	347	15,381

(1) No deposits are required to the R&R Fund from the O&M budget.
(2) Annual payments to the R&R Fund for R&R expenditures as shown in Table 7.
(3) Annual R&R expenditures.
(6) Interest earnings on monies invested in the R&R Fund at an assumed annual interest rate of 2.5%. Assumes deposits and expenditures occur relatively evenly throughout the year.
(7) Balance at year end 2012 based on $1,000,309 Required R&R Fund plus $6,220,599 Dedicated R&R Projects Fund plus $10,213,490 Self-Insured Risk Fund. With the Self-Insured Risk Fund included, the minimum balance is generally considered to be $10,000,000.

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

Figure 2
Projected Annual R&R Expenditures and R&R Reserve Balance (1)
Fiscal Years 2013 – 2042



(1) Assumes an initial balance of $17,434,000 in the R&R Fund, at the beginning of 2013. Note that transmission expenditure shown in 2034 is limited for graphical clarity. The debt funded amount in 2034 is $100.9 million.

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. 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 R&R Fund to pay the repair, replacement and renewal costs at the end of each fiscal year through 2042 are shown in Table 8. The balance in the R&R Fund shown in Table 8 includes the Self Insured Risk Fund balance, the Required R&R Fund balance 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 were 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. It should be noted that the balance in the Self Insured Risk Fund at the end of fiscal year 2012 was $10,213,490. Combined with the Required R&R Fund balance and the Dedicated R&R Projects Fund, the total balance available in the R&R Fund was $17,434,000 at the beginning of fiscal year 2013.

With the balance in the R&R Fund at the beginning of fiscal year 2013, annual deposits to the R&R Fund as shown in Table 7 and accrued interest earnings, the balance in the fund is estimated to remain above $10,000,000 in most years while funding the estimated R&R expenses as they occur. SEAPA will have a fair amount of flexibility in the exact timing of the R&R efforts in the future, however, and this allows additional management control of the year-end balance in the R&R Fund.

In addition to the funding of future R&R costs, the combined amounts shown in the R&R Fund 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 R&R 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 $10,000,000 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[8]. 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 current 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 $500,000 and 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[9], 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.

In a report entitled "Earthquake Vulnerability and Impact Analysis for Locations in Alaska" prepared by Marsh & McClennan Companies for the Four Dam Pool Power Agency in July

[8] *2012 Assessment of the Condition of the Submarine Cables On the Lake Tyee Project*, dated July 23, 2012 by Poseidon Engineering, LLC.

[9] Note that the estimated values shown are based on net book value and are not the replacement costs of the Projects.

2006, it was indicated that the highest loss event for a single earthquake event affecting the Projects is $3.5 million. Further, it is estimated that the maximum credible earthquake event affecting the Projects could cause as much as an $11.1 million loss. Since the estimated loss exceeds the deductible amount, the $7.85 million deductible amount is a reasonable reserve amount for earthquake damage. Note that at the time the 2006 Marsh & McClennan report was prepared, the Swan-Tyee Intertie was not in service. The potential damage to the STI from an earthquake is not included in the estimated cost of 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[10]. 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.

[10] 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 Insured Risk Fund)

The largest amount for the three factors shown above is $7.8 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-4)

Table A-1
Estimated Renewal and Replacement Expenditures
Source: SEAPA and Dryden LaRue Reports as Modified to Exclude Costs Currently Budgeted

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
2013	-	-	-	-	-	-	-	-	-	-	-	
2014	78	-	-	-	-	95	-	5	-	-	178	
2015	-	-	-	-	-	-	-	-	10	-	10	
2016	-	-	-	-	-	-	-	65	110	-	175	
2017	-	-	-	-	-	37	-	-	-	-	37	400
2018	-	-	-	-	-	-	-	-	-	-	-	
2019	538	1,949	-	-	261	-	-	165	-	-	2,913	
2020	-	-	-	-	-	-	-	-	191	-	191	
2021	-	-	90	-	-	-	-	55	-	-	145	
2022	-	-	-	-	39	51	-	-	-	-	90	3,339
2023	-	-	-	-	-	-	-	-	-	-	-	
2024	513	836	956	-	-	536	2,006	1,670	-	7,400	13,917	
2025	-	-	-	-	-	-	-	-	1,674	-	1,674	
2026	-	346	-	-	-	-	-	-	-	-	346	
2027	-	-	-	-	-	-	-	-	-	-	-	15,937
2028	-	-	239	-	-	-	-	-	-	-	239	
2029	-	-	-	-	-	37	-	-	-	-	37	
2030	-	-	-	-	-	-	-	-	122	-	122	
2031	-	-	-	-	-	-	-	65	45	-	110	
2032	-	-	137	2,000	-	-	-	-	-	-	2,137	2,645
2033	-	-	-	-	-	-	-	-	-	-	-	
2034	2,290	-	-	350	37	206	-	125	65	-	3,073	
2035	-	-	-	-	-	-	-	-	125	-	125	
2036	-	258	-	-	-	-	-	131	-	970	1,359	
2037	-	-	-	-	-	-	-	-	-	-	-	4,557
2038	-	-	-	-	-	-	-	-	-	-	-	
2039	-	-	-	-	-	-	-	165	-	-	165	
2040	-	-	-	-	-	-	-	-	-	-	-	
2041	-	-	-	-	-	37	-	-	-	-	37	
2042	-	-	-	-	-	51	-	-	-	-	51	253
Totals	3,419	3,389	1,422	2,350	337	1,050	2,006	2,446	2,342	8,370	27,131	27,131

Table A-2
Estimated Renewal and Replacement Expenditures
Source: SEAPA and Dryden LaRue Reports as Modified to Exclude Costs Currently Budgeted

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
2013	-	-	35	35	42	97	82	180	340	-	811	
2014	-	63	-	-	-	-	-	141	411	-	615	
2015	-	-	-	-	25	-	-	-	-	-	25	
2016	-	-	183	-	-	-	-	80	35	-	298	
2017	-	-	-	-	-	-	-	-	-	-	-	1,749
2018	-	-	-	-	8	-	-	-	85	-	93	
2019	54	179	-	-	-	-	-	213	1,005	-	1,451	
2020	-	-	-	-	-	82	-	-	70	-	152	
2021	-	-	-	-	84	-	-	250	-	-	334	
2022	-	-	-	-	301	-	-	-	-	-	301	2,331
2023	-	-	-	-	802	-	-	470	-	-	1,272	
2024	557	412	90	-	-	-	-	2,324	2,079	2,000	7,462	
2025	-	-	-	-	-	-	-	-	-	-	-	
2026	716	-	-	-	129	-	-	-	-	-	845	
2027	-	-	-	-	-	152	-	-	-	-	152	9,731
2028	-	-	-	-	8	-	-	-	-	-	8	
2029	-	-	-	-	-	281	-	-	65	-	346	
2030	-	597	-	-	33	-	-	-	-	-	630	
2031	-	-	-	597	-	-	-	80	35	-	712	
2032	-	-	143	-	-	52	-	-	-	-	195	1,891
2033	-	-	-	537	-	155	-	-	270	-	962	
2034	1,010	-	358	-	-	281	1,829	480	785	54,252	58,995	
2035	-	-	299	-	42	-	-	-	-	-	341	
2036	400	-	-	-	62	105	-	250	-	-	817	
2037	-	-	-	-	-	-	-	-	-	-	-	61,115
2038	-	-	-	-	12	-	-	-	-	-	12	
2039	-	-	-	-	-	-	-	-	-	-	-	
2040	-	3,190	-	-	250	82	-	-	-	-	3,522	
2041	-	-	-	-	38	-	-	470	-	-	508	
2042	-	-	-	-	25	-	-	250	-	-	275	4,317
2043												
Totals	2,737	4,441	1,108	1,169	1,861	1,287	1,911	5,188	5,180	56,252	81,134	81,134

TABLE A-3
Near-Term Estimated Renewal & Replacement Expenditures

Source: SEAPA Budget

	2013	2014	2015	2016	2017
R&R Expense Job Costs					
214-12 Digital Relays (3) TYL	$ 2,311	$ -	$ -	$ -	$ -
215-12 Narrowband Radios	49,334	-	-	-	-
222-13 Power Pole Replacements	397,000	125,000	125,000	125,000	125,000
223-13 Vehicle TYL - CLOSED FY13	24,918	-	-	-	-
224-13 Misc R&R SWL	10,537	10,000	10,000	10,000	10,000
225-12 Misc R&R TYL	13,207	10,000	10,000	10,000	10,000
224-13 Misc R&R SWL	-	-	-	-	
225-12 Misc R&R TYL	-	-	-	-	
SEAPA-02 Solomon PFMA - CLOSED	7,199	-	-	-	-
Subtotal	$ 504,506	$ 145,000	$ 145,000	$ 145,000	$ 145,000
Work in Process R&R Capital Projects					
002-10TRN Helicopter Pads	$ -	$ -	$ -	$ -	$ -
220-12 SCADA Upgrade	111,153	560,000	400,000	-	-
226-13 XFMR Junction Boxes Bailey	90,000	-	-	-	-
227-13 Burnett Peak Battery	34,300	-	-	-	-
228-13 Circuit Switcher WRG	-	100,000	-	-	-
229-13 Gate Control Refurbish TYL	6,693	28,317	-	-	-
230-13 Boat Dock Replace TYL	55,000	-	-	-	-
231-13 Helicopter Pads	135,000	1,608,000	1,607,000	-	-
232-13 Communications Upgrade	186,772	-	-	-	-
233-13 Excavator SWL	143,500	-	-	-	-
234-13 Gatehs Gen-Propane TYL	82,000	-	-	-	-
235-13 SEAPA Servers - CLOSED FY13	39,482	-	-	-	-
236-13 Wrangell Reactor	59,909	2,500,000	-	-	-
237-13 Remote Brkr Rack. Device	70,000	-	-	-	-
238-13 Replacement Winding SWL	855,000	40,000	-	-	-
240-13 Cooling Water TYL	15,005	184,683	-	-	-
241-13 Stream Gauge TYL	157,037	1,310,721	-	-	-
Subtotal	$ 2,040,851	$ 6,331,721	$ 2,007,000	$ -	$ -
Future R&R Capital Projects					
Wood Pole Treatment TRN	$ -	$ 150,000	$ 150,000	$ 100,000	$ -
Marine Terminal Gauges & Comm. TRN	-	150,000	-	-	-
Undersea Cable Splice Spares TRN	-	250,000	-	-	-
Boat SWL	-	150,000		-	-
Excavator TYL	-	120,000	-	-	-
Arctic Entries SWL	-	50,000	50,000	50,000	-
Oil Tanks SWL (buried)	-	50,000	50,000	50,000	-
Marker Balls TYL	-	100,000	100,000	100,000	100,000
Wooden Helipad Repair TRN	-	-	-	175,000	-
Revenue Meters PSG	-	28,000	-	-	-
Transducer WRG	-	58,000	-	-	-
Sectionalizing Reclosers	-	300,000	300,000	-	-
Equipment Shed Doors TYL	-	50,000	50,000	-	-
SWL Reservoir Expansion	575,000	1,051,000	4,685,000	6,929,448	-
AC DCCED - SWL Reservoir	-	(578,000)	-	-	-
Subtotal	$ 575,000	$ 1,929,000	$ 5,385,000	$ 7,404,448	$ 100,000
Total - All R&R Projects	$ 3,120,357	$ 8,405,721	$ 7,537,000	$ 7,549,448	$ 245,000

Table A-4
Southeast Alaska Power Agency
Estimated Near-Term (2013-2017) Transmission and Substation R&R Expenditures
Source: Dryden & LaRue

SWAN LAKE		2012$	Included in FY13 Budget	Remainder
Powerhouse Substation	Repair switches	$ 3,000	$ -	$ 3,000
	Transformer Wiring	30,000	-	30,000
	Replace tranformer meters	7,500	-	7,500
	Ground grid test	5,000	-	5,000
	Subtotal	$ 45,500	$ -	$ 45,500
Bailey Substation	Transformer Wiring	$ 30,000	$ -	$ 30,000
	Replace transformer meters	7,500		7,500
	Replace control boxes	40,000	40,000	-
	Ground grid test	5,000	-	5,000
	Subtotal	$ 82,500	$ 40,000	$ 42,500
Transmission Line	Inspect/treat wood poles	$ 400,000	$ -	400,000
	Reinforce 2 damaged wood poles	30,000	-	30,000
	Additional pole caps	50,000	-	50,000
	Woodpecker protection	50,000	-	50,000
	Helipads	200,000	200,000	-
	Additional guy markers	10,000	-	10,000
	Remove gravel from Str. #16	3,000	-	3,000
	Subtotal	$ 743,000	$ 200,000	$ 543,000
Total Swan Lake		$ 871,000	$ 240,000	$ 631,000

Table A-4
Southeast Alaska Power Agency
Estimated Near-Term (2013-2017) Transmission and Substation R&R Expenditures
Source: Dryden & LaRue

TYEE LAKE		2012$	Included in FY13 Budget	Remainder
Powerhouse Substation		$ -	$ -	$ -
Petersburg Substation	Painting	$ 10,000	$ -	$ 10,000
	Subtotal	$ 10,000	$ -	$ 10,000
Wrangell Switchyard	Replace 7500 kVar shunt reactor	$ 500,000	$ 500,000	$ -
	Subtotal	$ 500,000	$ 500,000	$ -
Wrangell Substation		$ -	$ -	$ -
Transmission Line - In Town	Inspect/treat wood poles	$ 150,000	$ -	$ 150,000
	Replace wood pole at Petersburg sub.	30,000	-	30,000
	Replace 5 poles near Wrangell harbor	250,000	-	250,000
	Subtotal	$ 430,000	$ -	$ 430,000
Transmission Line Cross Country	New tower signs for 3-pole structures	$ 150,000	$ -	$ 150,000
	Replace dampers	400,000	-	400,000
	Rip rap Str. #77-16M	20,000	-	20,000
	Helipads	150,000	150,000	-
	Sub. Cable failure materials	266,000	-	266,000
	Replace guages & misc. term. work	20,000	-	20,000
	Replace sub. Cable alarm comm. Sys	50,000	-	50,000
	Subtotal	$ 1,056,000	$ 150,000	$ 906,000
Total Lake Tyee		$ 1,996,000	$ 650,000	$ 1,346,000
Total - All Projects		**$ 2,867,000**	**$ 890,000**	**$ 1,977,000**

APPENDIX B

Expected service life and replacement cost tables.

Base data provided by SEAPA, Kepler Consulting 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$	2013	2014	2015	2016	2017	2018	2019	2020
1.00 Turbine and Other Mechanical Items													
1.01 Runner	Good	1984	50	22	955	0	0	0	0	0	0	0	0
Seal Rings	Good	1984	50	22	239	0	0	0	0	0	0	0	0
1.02 Wicket Gate replacement	Good	1984	50	22	239	0	0	0	0	0	0	0	0
Regulating ring bearings/ bushings	Fair	1984	40	12	119	0	0	0	0	0	0	0	0
1.03 Remaining Turbine Parts													
Turbine Guide Bearing	Poor	1984	35	7	239	0	0	0	0	0	0	239	0
Turbine Stuffing Box	Fair	1984	30	2	48	0	48	0	0	0	0	0	0
Linkage	Good	1984	30	2	30	0	30	0	0	0	0	0	0
Embeded parts	Good	1984	50	22	239	0	0	0	0	0	0	0	0
1.04 Governor	Excellent	2009	25	22	418	0	0	0	0	0	0	0	0
1.05 Butterfly Inlet valve	Excellent	1984	40	12	179	0	0	0	0	0	0	0	0
1.06 Cooling Water System	Fair	1984	40	12	119	0	0	0	0	0	0	0	0
1.07 Draft Tube Gate/ Guides	Good	1984	40	12	96	0	0	0	0	0	0	0	0
1.08 Other Aux Mechanical Equipment	Good	1984	35	7	299	0	0	0	0	0	0	299	0
1.09 Intake gate	Good	1984	50	22	200	0	0	0	0	0	0	0	0
2.00 Generator													
2.01 Stator	Good	1984	35	7	1194	0	0	0	0	0	0	1194	0
2.02 Rotor	Good	1984	40	12	836	0	0	0	0	0	0	0	0
2.03 Bearings	Good	1984	35	7	406	0	0	0	0	0	0	406	0
2.04 Cooling System	Fair	2006	20	14	346	0	0	0	0	0	0	0	0
2.05 Sensing Devices	Good	1984	35	7	31	0	0	0	0	0	0	31	0
2.06 Fire Protection	Good	1984	35	7	60	0	0	0	0	0	0	60	0
3.00 Excitation System	Good	2002	17	7	258	0	0	0	0	0	0	258	0
4.00 Electrical System													
4.01 Battery and chargers	Good	2007	25	20	137	0	0	0	0	0	0	0	0
4.02 Controls & Protective relaying	Good	2003	25	16	239	0	0	0	0	0	0	0	0
4.03 Station Service	Good	1984	40	12	179	0	0	0	0	0	0	0	0
4.04 15kV Switchgear	Good	1991	30	9	90	0	0	0	0	0	0	0	0
4.05 Cable System	Good	1984	40	12	492	0	0	0	0	0	0	0	0
				-2012									
5.00 SCADA System	Good	2004	30	22	350	0	0	0	0	0	0	0	0
6.00 Communications	Fair	2012	20	20	2000	0	0	0	0	0	0	0	0
7.00 Emergency Generator	Good	1984	40	12	195	0	0	0	0	0	0	0	0
8.00 Intake Gate Electrical Controls	Good	1984	40	12	90	0	0	0	0	0	0	0	0
9.00 Rolling Stock													
9.01 Pickup Truck 4WD w/ snow plow		1992	30	10	39	0	0	0	0	0	0	0	0
9.02a Grove crane	sold												
9.02 Knuckle Boom Truck		1984	35	7	127	0	0	0	0	0	0	127	0
9.03 Backhoe (John Deere)		1984	35	7	134	0	0	0	0	0	0	134	0
9.03a Trackhoe - $220K FY13 budgeted		2012	50	50	220	0	0	0	0	0	0	0	0
9.04 Bull dozer	sold	1984	50	22									
9.05 Forklift		1984	50	22	37	0	0	0	0	0	0	0	0
9.06 Four-Wheel Vehicle (ATV)		2000	50	38	6	0	0	0	0	0	0	0	0
9.07 Skiff (including motor)		2002	50	40	15	0	0	0	0	0	0	0	0
9.08 Skiff (including motor)		1998	50	36	5	0	0	0	0	0	0	0	0
9.09 SEAPA Boat from Tyee	Excellent	2012	50	50	14	0	0	0	0	0	0	0	0
10.00 Infrastructure													
10.01 Housing	Fair	1984	40	12	536	0	0	0	0	0	0	0	0
10.02 Storage and Other	Good	1984	50	22	191	0	0	0	0	0	0	0	0
10.03 Docks/walkaway	Good	2002	20	10	51	0	0	0	0	0	0	0	0
10.04 Incinerator	Good	1984	50	22	15	0	0	0	0	0	0	0	0
10.05 Potable Water System	Good	2005	12	5	37	0	0	0	0	37	0	0	0
10.06 Sewerage System	Good	1984	30	2	95	0	95	0	0	0	0	0	0
11.00 Civil Structures													
11.01 Dam/Spillway repairs	Good	1984	40	12	254	0	0	0	0	0	0	0	0
Debris removal, trash clearing	Good	2006	40	34	89	0	0	0	0	0	0	0	0
11.02 Intake gate structure	Very Good	1984	40	12	95	0	0	0	0	0	0	0	0
11.03 Power tunnel	Excellent	1984	40	12	382	0	0	0	0	0	0	0	0
11.04 Penstock	Good	1984	70	42	382	0	0	0	0	0	0	0	0
11.05 Dock and ramp	Good	1984	40	12	382	0	0	0	0	0	0	0	0
11.06 Powerhouse	Good	1984	40	12	509	0	0	0	0	0	0	0	0
11.07 Powerhouse roof	Some leaks	1984	40	12	104	0	0	0	0	0	0	0	0
11.08 Tailrace	Very Good	1984	40	12	127	0	0	0	0	0	0	0	0
11.09 Roads	Good	1984	40	12	153	0	0	0	0	0	0	0	0
TOTAL						-	173	-	-	37	-	2,748	-

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$)	2013	2014	2015	2016	2017	2018	2019	2020
11.00	**SwitchYard at Powerhouse**														
11.01	Transformers w/containment	Good	1984	40	12		$ 1,560	-	-	-	-	-	-	-	-
11.02	Circuit Breakers	Excellent	2006	30	24	c	131	-	-	-	-	-	-	-	-
11.03	Disconnect Switches	Good	1984	35	7		65	-	-	-	-	-	-	65	-
11.04	PTs, CTs, Wave Traps	Good	1984	40	12	e	-	-	-	-	-	-	-	-	-
11.05	Structures & Foundations	Good	1984	50	22		125	-	-	-	-	-	-	-	-
11.06	Fencing	Fair	1984	30	2	b	5	-	5	-	-	-	-	-	-
11.07	Generation Protection	Good	2003	18	9		55	-	-	-	-	-	-	-	-
11.08	Generation Control	Good	2009	15	12		65	-	-	-	-	-	-	-	-
11.09	Line Protection	Good	2009	15	12		45	-	-	-	-	-	-	-	-
11.10	Station Protection	Good	2001	15	4		65	-	-	-	65	-	-	-	-
11.11	All Others	Good	1984	35	7		100	-	-	-	-	-	-	100	-
	Subtotal						$ 2,216								
12.00	**Transmission Line**														
12.01	Insulators, porcelain	Good	1995	60	43		$ 400	-	-	-	-	-	-	-	-
12.02	Hardware	Good	1984	60	32		700	-	-	-	-	-	-	-	-
12.03	Conductors	Good	1984	60	32		5,700	-	-	-	-	-	-	-	-
12.04	Structures, wood	Good	1984	40	12		5,900	-	-	-	-	-	-	-	-
12.05	Foundations	Good	1984	80	52		11,500	-	-	-	-	-	-	-	-
12.06	Cans for x-country wood poles	Good	1984	40	12		1,500	-	-	-	-	-	-	-	-
12.07	Insulators, x-country composites	Fair	1996	40	24	c	970	-	-	-	-	-	-	-	-
12.08	Structures, steel	Good	1984	80	52		700	-	-	-	-	-	-	-	-
	Subtotal						$ 27,370								
13.00	**Bailey Substation**														
13.01	Transformers w/containment	Good	1985	40	13		$ 1,674	-	-	-	-	-	-	-	-
13.02	Circuit Breakers	Good	2000	30	18		122	-	-	-	-	-	-	-	-
13.03	Disconnect Switches	Good	1985	35	8		41	-	-	-	-	-	-	-	41
13.04	PTs, CTs, Wave Traps	Good	1985	40	13	e		-	-	-	-	-	-	-	-
13.05	Structures & Foundations	Good	1985	50	23		125	-	-	-	-	-	-	-	-
13.06	Fencing	Fair	1985	30	3	b	10	-	-	10	-	-	-	-	-
13.07	Generation Control		1998	18	4		65	-	-	-	65	-	-	-	-
13.08	Line Protection		2001	15	4		45	-	-	-	45	-	-	-	-
13.11	All Others	Good	1985	35	8		150	-	-	-	-	-	-	-	150
	Subtotal						$ 2,232								
	TOTAL						$ 11,577	-	5	10	175	-	-	165	191

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$	2013	2014	2015	2016	2017	2018	2019	2020
1.00 Turbine and Other Mechanical Items													
1.01 Runner	Excellent	2010	40	38	820	0	0	0	0	0	0	0	0
Runner crack & weld repairs	Removed	2010			597								
1.02 Needle/nozzle	Good	1984	50	22	896	0	0	0	0	0	0	0	0
Needle/nozzle overhaul	Good	2006	20	14	716	0	0	0	0	0	0	0	0
1.03 Remaining Turbine Parts													
Guide Bearing	Good	1984	50	22	54	0	0	0	0	0	0	0	0
Stuffing Box	Good	1984	35	7	54	0	0	0	0	0	0	54	0
Deflectors	Good	1984	50	22	60	0	0	0	0	0	0	0	0
Linkage	Good	1984	40	12	36	0	0	0	0	0	0	0	0
1.04 Governor	Excellent	2006	30	24	400	0	0	0	0	0	0	0	0
1.05 Spherical Inlet valve	Fair	1984	40	12	251	0	0	0	0	0	0	0	0
1.06 Intake gates	Fair	1984	40	12	150	0	0	0	0	0	0	0	0
1.07 Cooling Water System	Good	1984	40	12	60	0	0	0	0	0	0	0	0
1.08 Other Aux Mechanical Equipment	Good	1984	40	12	60	0	0	0	0	0	0	0	0
2.00 Generator													
2.01 Stator 1	Excellent	2010	30	28	998	0	0	0	0	0	0	0	0
2.011 Stator 2	Excellent	2010	30	28	998	0	0	0	0	0	0	0	0
2.02 Rotor 1	Excellent	2010	30	28	597	0	0	0	0	0	0	0	0
2.021 Rotor 2	Excellent	2010	30	28	597	0	0	0	0	0	0	0	0
2.03 Bearings	Excellent	1984	40	12	368	0	0	0	0	0	0	0	0
2.04 Cooling System	Fair	1984	35	7	179	0	0	0	0	0	0	179	0
2.05 Sensing Devices (RTD's, etc.)	Excellent	1984	40	12	44	0	0	0	0	0	0	0	0
2.06 Fire Protection	Good	1984	30	2	63	0	63	0	0	0	0	0	0
3.00 Excitation System	Excellent	2010	20	18	597	0	0	0	0	0	0	0	0
4.00 Electrical System													
4.01 Battery and chargers	Excellent	2007	25	20	143	0	0	0	0	0	0	0	0
4.02 Controls & Protective relaying	Good	2010	25	23	299	0	0	0	0	0	0	0	0
4.03 Station Service	Good	1984	50	22	358	0	0	0	0	0	0	0	0
4.04 15kV Switchgear	Good	1984	40	12	90	0	0	0	0	0	0	0	0
4.05 Cable System	Good	1984	60	32	370	0	0	0	0	0	0	0	0
5.00 SCADA System	FY13 R&R	2013	20	21	537	680	0	0	0	0	0	0	0
6.00 Communications (Burnett Pk. Equip)	Good	2006	25	19	597	35	0	0	0	0	0	0	0
7.00 Emergency Generator	Good	1986	30	4	183	0	0	0	183	0	0	0	0
8.00 Intake Gate Electrical Controls	FY13 R&R	2013	30	31	30	35	0	0	0	0	0	0	0
9.00 Rolling Stock													
9.01 Road Grader	Good	1988	35	11	354	0	0	0	0	0	0	0	0
9.02 Dump Truck	Good	1992	30	10	172	0	0	0	0	0	0	0	0
9.03 Front end loader	Good	1992	30	10	129	0	0	0	0	0	0	0	0
9.04 Cat D4 Bulldozer	Good	1988	35	11	322	0	0	0	0	0	0	0	0
9.05 Backhoe	Good	1996	30	14	129	0	0	0	0	0	0	0	0
9.06 Boom Truck	Fair	1988	35	11	126	0	0	0	0	0	0	0	0
9.07 Pickup Truck	Fair	1991	30	9	42	0	0	0	0	0	0	0	0
9.08 Pickup Truck	Fair	1991	30	9	42	0	0	0	0	0	0	0	0
9.09 Pickup Truck	Poor	1983	30	1	42	42	0	0	0	0	0	0	0
9.10 Passenger Van	New	2005	30	23	42	0	0	0	0	0	0	0	0
9.11 Electric Vehicle	Good	2008	10	6	8	0	0	0	0	0	8	0	0
9.11 Petersburg Brusher Truck	Good	2006	30	24	20	0	0	0	0	0	0	0	0
9.12 Pick up truck 3/4 ton to replace 1/2 ton	New	2006	30	24	42	0	0	0	0	0	0	0	0
9.13 2012 Ford Escape	New	2012	30	30	25	0	0	0	0	0	0	0	0
9.14 Second Northend pickup	Good	2000	15	3	25	0	0	25	0	0	0	0	0
9.15 Boat	New	2010	30	28	250	0	0	0	0	0	0	0	0
9.16 Skiff-12 ft. Lund w/trailer (10hp)	New	2008	30	26	4	0	0	0	0	0	0	0	0
9.17 Skiff at Tyee	Good	2000	30	18	7.5	0	0	0	0	0	0	0	0
9.18 Brusher 6 wheel all terrain	New	2011	30	29	38	0	0	0	0	0	0	0	0
10.00 Infrastructure													
10.01 Operator Housing	Fair/Good	1984	45	17	281	0	0	0	0	0	0	0	0
10.02 Crew quarters replacement	Good	1996	40	24	105	0	0	0	0	0	0	0	0
10.02 Crew quarters roof replacement		2012	20	20	35	25	0	0	0	0	0	0	0
10.03 Storage and Other	Good	1984	50	22	281	0	0	0	0	0	0	0	0
10.04 Docks	Good	2013	20	21	155	55	0	0	0	0	0	0	0
10.05 Runway	Good	1997	30	15	70	0	0	0	0	0	0	0	0
10.06 Potable Water System	Good	2007	20	15	82	0	0	0	0	0	0	0	0
10.07 Sewerage System	Good	2000	20	8	82	0	0	0	0	0	0	0	82
10.08 Incinerator	Good	1992	20	0	17	17	0	0	0	0	0	0	0
11.00 Civil Structures													
11.01 Access Roads	Excellent	1984	50	22	281	0	0	0	0	0	0	0	0
11.02 Intake gatehouse structure	Good	1984	50	22	141	82	0	0	0	0	0	0	0
11.03 Dropshaft/ tunnel	Good	1984	50	22	704	0	0	0	0	0	0	0	0
11.04 Penstock	Good	1984	50	22	211	0	0	0	0	0	0	0	0
11.05 Powerhouse	Good	1984	50	22	281	0	0	0	0	0	0	0	0
11.06 Tailrace	Good	1984	50	22	211	0	0	0	0	0	0	0	0
TOTAL						971	63	25	183	-	8	233	82

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$)	2013	2014	2015	2016	2017	2018	2019	2020
11.00	**SwitchYard at Powerhouse**														
11.01	Transformers	Good	1984	40	12		$ 2,074	-	-	-	-	-	-	-	-
11.02	Circuit Breaker	Good	1984	30	2		126	-	126	-	-	-	-	-	-
11.03	Disconnect Switches	Good	1984	35	7		63	-	-	-	-	-	-	63	-
11.04	PTs, CTs, Wave Traps	Good	1984	40	12	e	-	-	-	-	-	-	-	-	-
11.05	Circuit Switchers	Good	2006	50	44		210	-	-	-	-	-	-	-	-
11.06	Structures & Foundations	Good	1984	50	22	b	200	-	-	-	-	-	-	-	-
11.07	Fencing	Fair	1984	30	2		15	-	15	-	-	-	-	-	-
11.08	Generation Control		1984	25	-3		280	280	-	-	-	-	-	-	-
11.09	Governor		2006	18	12		250	-	-	-	-	-	-	-	-
11.10	SCADA Master		2006	15	9		250	-	-	-	-	-	-	-	-
11.11	Generation Protection		2005	18	11		470	-	-	-	-	-	-	-	-
11.12	Line Protection		2001	15	4		45	-	-	-	45	-	-	-	-
11.13	Station Protection		2001	15	4		35	-	-	-	35	-	-	-	-
11.14	All Others	Good	1984	35	7		150	-	-	-	-	-	-	150	-
	Subtotal						$ 4,168								
12.00	**Transmission Line**														
12.01	Insulators, original	Good	1984	50	22		2,100	-	-	-	-	-	-	-	-
12.02	Hardware, original	Good	1984	50	22		3,300	-	-	-	-	-	-	-	-
12.03	Conductors	Good	1984	50	22		13,500	-	-	-	-	-	-	-	-
12.04	Structures, original steel	Good	1984	80	52		12,000	-	-	-	-	-	-	-	-
12.05	Structures, wood poles	Good	1984	40	12		2,000	-	-	-	-	-	-	-	-
12.06	Foundations, original	Good	1984	80	52		20,000	-	-	-	-	-	-	-	-
12.07	Insulators, V-towers	Good	1998	50	36	*c*	1,100	-	-	-	-	-	-	-	-
12.08	Hardware/guys, V-towers	Good	1998	50	36	*c*	2,400	-	-	-	-	-	-	-	-
12.09	Structures, V-towers	Good	1984	80	52	*c*	6,000	-	-	-	-	-	-	-	-
12.10	Foundations, V-towers	Good	1984	80	52	*c*	10,500	-	-	-	-	-	-	-	-
12.11	Submarine Cable	Good	2005	50	43	*c*	1,000	-	-	-	-	-	-	-	-
	Subtotal						$ 73,900								
12.12	Submarine Cable - replace	Excellent	1984	50	22	*f*	35,352	-	-	-	-	-	-	-	-
							$ 109,252								
13.00	**Wrangell Switchyard**														
13.01	Transformers	Good	1984	40	12		$ 658	-	-	-	-	-	-	-	-
13.02	Circuit Breakers	Good	1984	30	2		42	-	42	-	-	-	-	-	-
13.03	Disconnect Switches	Good	1984	35	7		63	-	-	-	-	-	-	63	-
13.04	PTs, CTs, Wave Traps	Good	1984	40	12	e		-	-	-	-	-	-	-	-
13.05	Circuit Switchers	Good	2005	50	43		210	-	-	-	-	-	-	-	-
13.06	Structures & Foundations	Good	1984	50	22		250	-	-	-	-	-	-	-	-
13.07	Fencing	Fair	1984	30	2	b	30	-	30	-	-	-	-	-	-
13.08	Line Protection		2001	15	4		35	-	-	-	35	-	-	-	-
13.09	Station Protection		1984	25	-3		45	45	-	-	-	-	-	-	-
13.10	Station Control		1984	25	-3		85	85	-	-	-	-	-	-	-
13.11	Control Building	Good	1984	35	7		80	-	-	-	-	-	-	80	-
13.13	All Others	Good	1984	35	7		300	-	-	-	-	-	-	300	-
	Subtotal						$ 1,798								
14.00	**Wrangell Substation**														
14.01	Transformers	Good	1984	40	12		$ 595	-	-	-	-	-	-	-	-
14.02	Metalclad	Good	1984	30	2		254	-	254	-	-	-	-	-	-
14.03	Circuit Switchers	Good	2004	50	42		109	-	-	-	-	-	-	-	-
14.04	Structures & Foundations	Good	1984	50	22		80	-	-	-	-	-	-	-	-
14.05	Fencing	Fair	1984	30	2	b	10	-	10	-	-	-	-	-	-
14.06	Line Protection		2008	25	21		185	-	-	-	-	-	-	-	-
14.07	Line Control		1984	15	-13		65	65	65	-	-	-	-	-	-
14.08	Station Protection		1984	25	-3		25	25	-	-	-	-	-	-	-
14.09	All Others	Good	1984	35	7		150	-	-	-	-	-	-	150	-
	Subtotal						$ 1,473								
15.00	**Petersburg Substation**														
15.01	Transformers	Good	1984	40	12		$ 826	-	-	-	-	-	-	-	-
15.02	Circuit Breakers	Good	1990	30	8	c	70	-	-	-	-	-	-	-	70
15.03	Disconnect Switches	Good	1984	35	7		32	-	-	-	-	-	-	32	-
15.04	PTs, CTs, Wave Traps	Good	1984	40	12	e		-	-	-	-	-	-	-	-
15.05	Circuit Switchers	Good	2004	50	42		106	-	-	-	-	-	-	-	-
15.06	Structures & Foundations	Good	1984	50	22		180	-	-	-	-	-	-	-	-
15.07	Fencing	Fair	1984	30	2	b	10	-	10	-	-	-	-	-	-
15.08	Line Protection	Good	2003	15	6		85	-	-	-	-	-	85	-	-
15.09	Line Control		1984	25	-3		85	85	-	-	-	-	-	-	-
15.10	Station Protection	Good	1984	25	-3		35	35	-	-	-	-	-	-	-
15.11	Control Building	Good	1984	35	7		80	-	-	-	-	-	-	80	-
15.12	All Others	Good	1984	35	7		300	-	-	-	-	-	-	300	-
	Subtotal						$ 1,809								
	TOTAL						$ 10,233	620	552	-	115	-	85	1,218	70

SOUTHEAST ALASKA POWER AGENCY

Date: April 12, 2013

To: Trey Acteson

From: Steve Henson, Operations Manager

Subject: Operations Update for April 25, 2013 Board Meeting

Purpose: To provide a status report on major operations activities.

REGULATORY

FERC

An RFP has been issued for the creation of a matrix for the reporting requirements and obligations subject to the FERC licenses of our systems. With the recent changes and programs put forth by FERC it was thought prudent to have a professional review of our present reporting practices and to insure all new programs are properly addressed.

MAJOR CONTRACTS

Wrangell Reactor

The Wrangell Reactor replacement project management, engineering, and design have been awarded to Electric Power Systems, Inc. (EPS). Completion of the project has been tentatively set for December 2013.

An update will be provided at the board meeting during the OPS report.

Wrangell Reactor Switching Study

A study to assess the feasibility of operating the system without a reactor in Wrangell in the event of a premature failure of the reactor has been completed.

The system has been modeled without the reactor and scenarios were modeled for switching the reactor in and out during different seasons and loads. Theoretically we could operate without the reactor but during light load conditions it would be on the very edge of system capabilities. Energizing from Wrangell to Petersburg would be difficult but feasible.

Also addressed is the scenario of a line fault without the reactor in service and it was determined that normal relay protection on the system would not be compromised.

A copy of the report is attached.

Satellite Communications System

An RFP has been issued for a satellite communication system that would encompass the Swan and Tyee systems with a link to the SEAPA office. Proposals are due April 19, 2013 and the results will be available for discussion at the board meeting. Any recommendations for award of the contract will be addressed under New Business at the board meeting.

STI Helipads

The change analysis has been completed and submitted to the USFS. We are anticipating a response from the USFS in the near future.

The following is a tentative schedule for installation of helipads.

2013 - 3 prototypes installed May/June

2013 - 30 installs from July to October

2014 - 55 to 70 installs from April to October

2015 - remaining 20 to 40 installs from April to August

Argo Use Permit

A permit application has been submitted to the USFS for the use of the Argo all-terrain vehicle on the Tyee transmission line right-of-way.

We are waiting instructions from the USFS pertaining to any environmental impact studies we may be required to perform.

Annual Maintenance

Chatham Electric, Inc. has been awarded the Transmission Line Maintenance Contract for a total of $1,654,740.00 for the fiscal years of 2013 through 2015 with an option for 2016.

Maintenance beyond the normal line and tower inspections are: pole top caps, flour rod treatment spikes and woodpecker damage abatement on the Swan line; marine terminal disconnect switches, disconnect switches in the Wrangell switchyard, and vibration dampers on the Tyee line.

Major contract maintenance: power transformer testing and maintenance at the Wrangell substation, load tap changer maintenance at the Wrangell and Petersburg substations, air blast circuit breaker testing and maintenance at the Wrangell substation, Schweitzer relay testing and maintenance at both plants and all substations; and, installation of replacement junction boxes at the Bailey substation.

The present shutdown schedule is as follows:

Location	Schedule
Swan Lake	May 20 – 24, 2013
Tyee Lake	May 28 – June 6, 2013
Swan-Tyee Intertie	June 7 – 14, 2013

Structure 76-1M

A task order issued to Tongass Engineering to provide engineering design and project management for the stabilization of the embankment. Completion of the project is expected by June 30, 2013.

Tyee Dock Replacement

An RFP issued for the float replacement at the Tyee harbor. Two bids were received and a request to increase the R&R budget and award the contract will be addressed under New Business at the board meeting.

Tyee Gatehouse Generator

An RFP for the replacement propane generator for the Tyee gatehouse issued. Proposals are due April 19, 2013 and the results will be available for discussion at the board meeting. Any recommendations for award of the contract will be addressed under New Business at the board meeting.

CONCLUSION

Staff will be available to answer any questions or concerns.

Attachment:
Wrangell Reactor Switching Study (March 28, 2013)
by Commonwealth Associates, Inc.

WRANGELL REACTOR SWITCHING STUDY
SEAPA TASK ORDER 13-02

March 28, 2013

Prepared for:

SEAPA

Southeast Alaska Power Agency

Prepared by:

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P.O. Box 1124
Jackson, MI, 49204-1124

March 28, 2013
CAI 354017

Mr. Steven R. Henson
Operations Manager
Southeast Alaska Power Agency
1900 First Avenue, Suite 318
Ketchikan, AK 99901

**SUBJECT: WRANGELL REACTOR SWITCHING STUDY
SEAPA Task Order 13-02**

Dear Mr. Henson:

The attach report provides the results of our study to evaluate operation of the SEAPA transmission system without the Wrangell 7.5 MVAR reactor.

Our study shows that it is possible to operate without the reactor provided certain precautions and care are taken. The following conclusions are provided in the report:

1. Both Tyee units should be in service to absorb vars.

2. The Tyee GSU transformers should have their taps set at Pos. 5 (65.55 kV).

3. Tyee generators should be capable of operating down to 94 percent (12.9 kV). This is based on the transformer tap adjusted as recommended above. Without the tap adjustment the generators should be capable of operating down to 90 percent (12.4 kV). The Tyee generators also should be capable of operating at leading power factor within the capability curve at low power levels. Our studies show the machines operating at close to -8 MVAR at minimum generation levels. Commonwealth has not evaluated possible needed changes to generator/exciter controls and protection settings that may be need for operating the units at low voltages and with maximum leading reactive. Also, the impact on plant auxiliary facilities at low voltages has not been evaluated in this report.

4. Voltages on the 69 kV at Wrangell and Petersburg may exceed 105 percent under some operating conditions. 69 kV equipment at Wrangell and Petersburg should be carefully reviewed to determine if there would be any problems for operating the 69 kV system between 105 to 110 percent in an emergency.

Mr. Steven Henson
Southeast Alaska Power Agency
March 28, 2013
Page 2

5. We found that the 2.5 MVAR reactor is beneficial and would aid in controlling system voltages.

6. Since the worst case is energization of the Wrangell – Petersburg 69 kV circuit at minimum system loading; the studies show that it is possible without the above mentioned 2.5 MVAR reactor or having diesel generators running. The reactor or using diesels to aid in controlling voltages would be beneficial but not required.

Please refer to the report for additional details and discussions. Please call me if you have any questions or comments about the study results. We appreciate the opportunity to provide engineering services to SEAPA.

Sincerely,

David A. Shafer

David A. Shafer, P.E.
Project Manager

DAS/ksc

WRANGELL REACTOR SWITCHING STUDY
SEAPA TASK ORDER 13-02

Prepared for:

SOUTHEAST ALASKA POWER AGENCY (SEAPA)

Prepared by:

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March 28, 2013
File: 354017\309

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INTRODUCTION

The Southeast Alaska Power Agency (SEAPA) is reviewing the possibility of operating the grid without the reactor which is located in the Wrangell Switchyard. The reactor is 7.5 MVAR, 69 kV and is designed to absorb the submarine cable charging capacitance on the transmission line to Petersburg. There are two conditions to be evaluated:

1. Assume the reactor is unavailable because it has failed.
2. Assume the reactor is switched out during high load conditions to improve system voltages.

LOAD CONDITIONS

The study includes three loading scenarios:

1. Winter Peak load – based on the Winter Peak load experienced in 2012 with a 99.7 percent Power Factor

Petersburg load was	12.5 MW
Wrangell load was	9.5 MW

   This was a 129 percent load growth compared to 2011
   We assumed a similar load growth for Ketchikan

Ketchikan load assumed	35.0 MW
Total SEAPA Load and Losses	60.35 MW

2. Summer Minimum Monthly Peak load – based on our 2011 study data with a 97.8 percent Power Factor

Petersburg load was	3.99 MW
Wrangell load was	2.85 MW
Ketchikan load was	12.13 MW
Total SEAPA Load and Losses	19.50 MW

3. Summer Minimum load – based on our 2011 study data with a 97.8 percent Power Factor

Petersburg load was	2.00 MW
Wrangell load was	1.42 MW
Ketchikan load was	6.06 MW
Total SEAPA Load and Losses	9.75 MW

GENERATOR DISPATCH

SEAPA generation was dispatched for each loading scenario as follows:

1. Winter Peak load – To meet the demand all hydro generation was at maximum and Bailey Diesel Units 1 and 2 were also dispatched.

Tyee Lake 1 and 2 (Maximum)	22.0 MW
Crystal Lake	1.4 MW
Swan Lake 1 and 2 (Maximum)	22.5 MW
Ketchikan Hydro Plants	8.6 MW
Ketchikan Diesel (Bailey 1 and 2)	5.85 MW
Total SEAPA Generation	60.35 MW

2. Summer Minimum Monthly Peak load – our strategy for minimum load conditions was to keep both Tyee Lake units in-service to keep their voltage regulation capability for reducing the voltage at Petersburg and Wrangell. We also kept Crystal Lake unit in-service. Its reactive (MVAr) absorption ability more than offsets the impacts of its 1.0 MW minimum real output. This strategy was employed due to the long lines with their submarine cables in this region which result in high voltages under light load conditions.

Tyee Lake 1 and 2	5.6 MW
Crystal Lake	1.0 MW
Swan Lake 1 (Minimum)	6.0 MW
Ketchikan Hydro Plants	6.9 MW
Ketchikan Diesel (Off)	---
Total SEAPA Generation	19.5 MW

3. Summer Minimum load – we followed the same strategy as in number 2 above.

Tyee Lake 1 and 2	4.35 MW
Crystal Lake	1.0 MW
Swan Lake (Off)	---
Ketchikan (Beaver Falls)	4.4 MW
Ketchikan Diesel (Off)	---
Total SEAPA Generation	9.75 MW

GENERATOR LEADING REACTIVE CAPABILITY

The Generator Reactive Capability, under light load conditions, was modified from the previous study. The maximum reactive capability at rated Power Factor was not changed. However, minimum Generator Reactive Capability was revised based on data for the Tyee generating units. The minimum reactive capability is essentially the ability of the generator to operate in the "lead" and absorb reactive power (MVAr), this capability is an essential element of the generating units that is used to reduce high system voltages that can occur during light load conditions (especially in the Petersburg and Wrangell region). From the available data, the leading Power Factor for the generators is 95 percent (for both the 80 and 90 percent rated* units). Below 95 percent leading the Reactive Capability Curve for the Tyee units follows a constant slope (0.62) until it reaches -0.90 per unit (absorbing MVAr) at zero MW.

> **The rated Power Factor for the generating units is a design criteria used by the manufacturer to set the "lagging" reactive capability, or the ability of the unit to send reactive power (MVAr) into the power system to help raise (increase) system voltages.*

When a generator is operating in the lead (absorbing MVAr) there is a possibility that it may cross the Steady State Stability boundary. If this occurs the unit will suddenly slip a pole and likely trip off-line. To avoid this possibility Commonwealth conservatively reduced the constant slope for the Tyee units from 0.62 to 0.50 and below 40 percent load held the reactive capability constant at -0.5872 per unit (i.e. the leading capability at 0.40 per unit load with an assumed 0.50 slope from 95 percent Power Factor leading). Figure 1 shows the reactive capability curve Commonwealth applied in these studies.

For the Tyee and Swan Lake units, Commonwealth suggests the following leading limits for absorbing reactive power:

	Per Unit Values		**Tyee and Swan Lake Leading**	
	P	**Q**		
	p.u.	**p.u.**	**MW**	**MVAr**
	0.95	-0.31225	11.875	-3.903
(for 90% rated PF)	0.90	-0.33725	11.250	-4.215
(for 80% rated PF)	0.80	-0.38725		
	0.40	-0.58725	5.000	-7.344
	and less	-0.58725	0.000	-7.344

The per unit values should be applicable for all of the SEAPA units, but comparison with the actual unit Reactive Capabilities Curves is required to prove applicability.

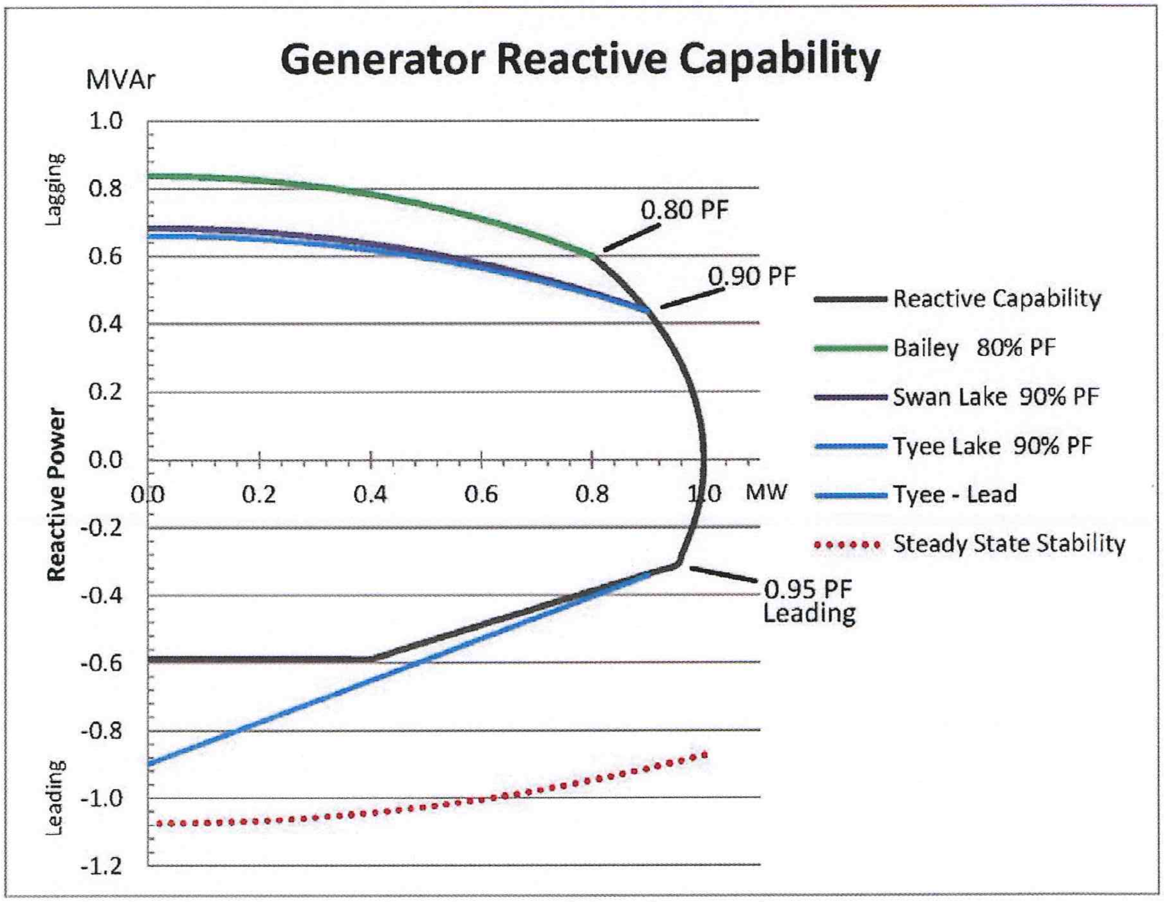


Figure 1

RESULTS FOR WINTER PEAK LOAD (2012)

In Case 1a, with both Tyee and Swan Lake and all of the smaller hydro plants operating at their maximums plus some diesels operating in the Ketchikan system, the system managed to meet this very demanding load level. With the Wrangell 7.5 MVA reactor in-service, the simulated voltage regulation in all of the distribution systems operated to hold customer voltages at nominal levels (near 1.0 per unit). Low voltages were observed in the Petersburg and Wrangell high voltage systems where the nominal 69 kV dropped below 95 percent, to 91.7 percent (63.3 kV) and 94.1 percent (64.9 kV) respectively. Commonwealth is not concerned with this drop below 95 percent of nominal voltage since no load is directly served from the high voltage systems.

The Case 1a, Tyee generator terminal voltages were raised to 104.2 percent (14.4 kV) with the units exporting (lagging) 4.25 MVAr.

In Case 1b, when the reactor was switched out-of-service for this load level it improved the 69 kV low voltage pockets at Petersburg and Wrangell to 99.0 and 101.1 percent respectively. The voltage regulation in all of the distribution systems continued to hold customer voltages at nominal levels (near 1.0 per unit).

RESULTS FOR SUMMER MINIMUM MONTHLY PEAK LOAD (2011)

For Case 2a, we applied our strategy of having both Tyee Lake and the Crystal Lake units in operation at low output levels and only one Swan Lake unit operating at its minimum level of 6 MW. With the Wrangell 7.5 MVA reactor in-service the simulated voltage regulation in all of the distribution systems operated to hold customer voltages at nominal levels (near 1.0 per unit). The Petersburg and Wrangell high voltage systems maintained nominal 69 kV voltages near unity, 100.6 percent (69.4 kV) and 101.0 percent (69.7 kV) respectively. Overall, we found very good results.

In Case 2b-1 when the reactor was switched out-of-service for this load level the 69 kV systems at Petersburg and Wrangell rose to voltage levels above 105 percent, 106.8 percent (73.7 kV) and 107.0 percent (73.8 kV) respectively, while the voltage regulation in all of the distribution systems continued to hold customer voltages at nominal levels (near 1.0 per unit). The Tyee and Crystal Lake generating units have maxed out their reactive absorption capabilities in this simulation (i.e. they have done their best to hold voltages down). The leading limits for the Tyee Lake units used in Case2b-1 are -5.328 MVAr based on the model prepared last year, not the -7.344 MVAr leading limit suggested in this year's model, which will be used in Case 2b-2.

Directly servicing customers with voltages above 105 percent should not be permitted since significant equipment damage could result. However, as discussed previously, the 69 kV systems at Petersburg and Wrangell do not directly service customer load. Further, these systems have been designed to be upgraded to 138 kV operation; thus Commonwealth feels that operating these non-load serving 69 kV systems at between 105 to 110 percent in extreme circumstances, as for the described loss of the Wrangell reactor, should be permitted. Also observed in Case 2b-1, the Tyee 13.8 kV terminal voltage has been lowered to just under 95 percent of nominal, to 94.8 percent (13.1 kV).

Case 2b-2 is identical to Case 2b-1 except that the Tyee (and Swan) Lake units are modeled with the revised leading reactive capability of -7.344 MVAr as suggested previously for this year's model. With the reactor out-of-service the Tyee units used their extended reactive leading capability to absorb -6.295 MVAr (compared to the -5.328 MVAr in Case 2b-1). As a result, the 13.8 kV terminal voltages at both Tyee Lake units dropped to low levels near 90 percent of nominal, 91.9 percent (12.7 kV) each. This is one of the consequences of absorbing additional reactive power to lower the system voltage; it also lowers the generator terminal voltage. The advantage achieved is that the Petersburg and Wrangell 69 kV system voltages drop below 105 percent, to 104.7 percent (72.3 kV) and 104.8 percent (72.3 kV) respectively.

Typically, generating units are designed for operation at voltages down to 90 percent of nominal. Before allowing the Tyee 13.8 kV terminal voltage to drop to near 90 percent of nominal, Commonwealth would recommend checking the manufacturers operating guarantees, specifications and the unit test sheets for confirmation as to acceptable low operating voltages. Also, other system components, including the auxiliary systems, should be proven capable of operation at 90 percent of nominal; staged testing would be recommended.

Cases 2b-1 and 2b-2 demonstrate two operating extremes that require thought by SEAPA. The first extreme, shown in Case 2b-1, is allowing the Petersburg and Wrangell 69 kV systems to operate above 105 percent of nominal. The second extreme, shown in Case 2b-2, is allowing the Tyee Lake 13.8 kV voltage to drop below 95 percent.

RESULTS FOR SUMMER MINIMUM LOAD (2011)

In Case 3a, we again applied our strategy of having both Tyee Lake and the Crystal Lake units in operation at low output levels. In this case both Swan Lake units were out-of-service. In addition the hydro units at Ketchikan and Silvis Glen were also out-of-service. With the Wrangell 7.5 MVA reactor in-service the simulated voltage regulation in all of the distribution systems operated to hold customer voltages at nominal levels (near 1.0 per unit). The Petersburg and Wrangell high voltage systems maintained nominal 69 kV voltages near unity, 99.1 percent (68.4 kV) and 98.9 percent (68.3 kV) respectively. These are very good results.

In Case 3b-2, it is similar to Case 2b-2, in that, the Tyee and Swan Lake lower reactive limits were modeled at -7.344 MVAr (leading). When the reactor was switched out-of-service for this minimum load level the 69 kV systems at Petersburg and Wrangell rose to voltage levels just over 105 percent, 105.5 percent (72.8 kV) and 105.3 percent (72.6 kV) respectively. As for all of the simulations, the voltage regulation in all of the distribution systems continued to hold customer voltages at nominal levels (near 1.0 per unit). We also note that the Crystal Lake unit has maxed out its reactive absorption capability (i.e., done its best to hold Petersburg voltages down).

As discussed in the previous section, in extreme circumstances, such as for the loss of the Wrangell reactor, Commonwealth recommends permitting the operation of these non-load serving 69 kV Petersburg and Wrangell systems at voltages between 105 to 110 percent of nominal (72.45 kV to 75.9 kV).

As discussed in the previous section, the 13.8 kV terminal voltages at both Tyee Lake units dropped to low levels near 90 percent of nominal, 90.4 percent (12.5 kV) each. Efforts to lower the system voltage result in a lower terminal voltage. We repeat that Commonwealth would recommend checking the manufacturers operating guarantees, specifications and the unit test sheets for confirmation as to acceptable low operating voltages. Other system components, including the auxiliary systems, should be proven capable of operation at 90 percent of nominal. Staged testing at 90 percent of nominal voltage would be recommended.

DYNAMIC RESPONSE WHEN SWITHCHING THE WRANGELL REACTOR

Commonwealth prepared simulations of switching the Wrangell Reactor both in- and out-of-service for all three of the loading scenarios:

	Wrangell Reactor Switched	
	Out-of-service	In-service
1. Winter Peak	Exhibit D1.0	Exhibit D1.1
2. Summer Minimum Monthly Peak	Exhibit D2.0	Exhibit D2.1
3. Summer Minimum	Exhibit D3.0	Exhibit D3.1

None of the six simulations showed unstable responses to the either switching the reactor out-of-service or switching it to in-service. For these scenarios, switching the reactor in-service provided a more significant response than switching the reactor out-of-service. However, all of the simulations showed some level of small signal instability in the Tyee generators (small signal instability is frequently described as "hunting" by system operators). In order of decreasing significance, Exhibits D1.1 and D3.1 show the most hunting (Figure A in each for the Tyee output).

Small signal instability was particularly evident in D1.1, when switching the reactor in-service at the time of the summer minimum. Figure 1.1a in Exhibit D1.1 shows the response of the Tyee units when the reactor is switched into service. The unit MW output is swinging (hunting) by about 2.5 MW throughout the 300 cycle (five-second) simulation. This kind of response is caused by interactions between the control systems on the generators and can be corrected by tuning the controls. The exciter models prepared by Commonwealth are generic, representing typical models for the SEAPA units. The actual exciter controls may already be correctly tuned to prevent this type of interaction. A real world indication for this phenomenon is whether the operators are experiencing hunting, where the unit output (MW or MVAr) will swing over time.

Commonwealth would recommend obtaining better modeling data for the exciter. This would require contacting the manufacturer and determining if SEAPA has exciter test data that would allow us to produce a more accurate model. It is very possible that the exciter controls in the SEAPA system have already been adjusted to prevent hunting. If operator experience indicates that unit hunting is a common occurrence (i.e. generator output periodically varying by a few MW every few seconds for extended periods of time), then we would recommend that SEAPA should undertake a tuning study to correct this problem. Commonwealth does not consider this to be a serious problem, but SEAPA may want to consider additional studies.

UTILIZING THE POSSIBLE WRANGELL 2.5 MVAr REACTOR

Exhibit E1-2, Case 3c-2, demonstrates that operating during the Summer Minimum (load Scenario 3) with the 2.5 MVAr reactor in-service at the Wrangell Switchyard does improve the voltage profile. Operating, as shown, with Tyee 69 kV scheduled at 99 percent of nominal the Wrangell and Petersburg 69 kV voltages are below 105 percent, however, the Tyee generator terminal voltage is low at 92.5 percent. Alternatively, operating the scheduled Tyee 69 kV voltage at 101 percent would raise the terminal voltage to near 95 percent, while raising the Wrangell and Petersburg 69 kV voltages to near 107 percent. Adjusting the GSU no-load Tap to Position 4 or 5 would further improve this option. Overall the 2.5 MVAr reactor improves the voltage profile and leaves some room for adjustments as the SEAPA system adapts to future changes.

ENERGIZING WRANGELL–PETERSBURG WITHOUT THE WRANGELL REACTOR

Starting without 69 kV service to Wrangell and Petersburg at the time of summer minimum load (load Scenario 3) and with the Wrangell 7.5 MVAr reactor also out-of-service, Commonwealth simulated reclosing the 69 kV first into Wrangell, resynchronizing with the Wrangell load, and then reclosing the 69 kV into Petersburg. The simulations assume that the 69 kV circuits are initially unenergized (i.e. at zero volts) with their 69 kV transformers open and their load served from local diesel generation. Case 4b-x0, Case 4b-x1, Case 4b-01 and Case 3b show the four stages of steady state conditions as reclosing is performed (see Exhibit 1-2):

1. Case 4b-x0 (x=Petersburg circuit open and 0=zero 69 kV load at Wrangell) depicts the reclosing from Tyee Lake to Wrangell with the Wrangell 69 kV transformer and the line to Petersburg out-of-service. For this summer minimum load case, with both Wrangell and Petersburg served independently from local generation, only one Tyee lake unit and the Beaver Falls Hydro plant are in-service at minimum levels.

   The 69 kV voltage at Tyee Lake has been scheduled to hold 101 percent (69.7 kV), while maintaining a generator terminal voltage of 95.0 percent (13.11 kV). When the Tyee to Wrangell circuit is closed in the Wrangell 69 kV rises to 102.3 percent (70.6 kV). Overall the energization from Tyee Lake to the open transformer at Wrangell Substation was successful without the Wrangell 7.5 MVA reactor.

   Exhibit E1 shows the transient stability response when closing Tyee Lake into the dead 69 kV circuit to the open Wrangell transformer:

   a. Figure E1a, Tyee Unit 1 (MW and MVAr), shows that before the circuit is energized (before t = 6 cycles, 0.5 seconds) the Tyee Unit 1 reactive flow (leading or absorbing) is -3.6 MVAr, when the circuit is energized it quickly peaks at -6.9 MVAr and then settles to a steady -6.3 MVAr.

b. Figure E1c, Terminal Voltage (P.U.), shows that before the circuit is energized the Tyee Unit 1 voltage is 96.3 percent (13.3 kV), when the circuit is energized it quickly peaks at 103.1 percent (14.3 kV) and then settles back to 96.4 percent (13.3 kV).

c. Figure E1d, Bus Voltage (P.U.), shows that when the circuit is energized the 69 kV voltage at Wrangell quickly peaks at 104.6 percent (72.2 kV) and then settles back to 97.8 percent (67.5 kV).

The brief transient spike immediately after the circuit is energized is a very typical transient response and is damped out within approximately one-half second (30 cycles). In this example no overvoltages are seen, but even modest overvoltages are within the normal equipment damage curves given the very brief duration depicted here.

2. Case 4b-x1 (x=Petersburg circuit open and 1=summer min. 69 kV load at Wrangell) depicts the SEAPA system after resynchronizing at Wrangell, still with only one Tyee Lake unit in-service.

   In stage two, the Wrangell 69 kV and distribution systems are synchronized and Tyee Lake Unit 2 is brought on-line while the Wrangell diesels are reduced to zero output. The Tyee Lake 69 kV voltage is reduced to 99 percent (68.3 kV) and both unit terminal voltages drop to 94.8 percent (65.4 kV). With the reduction of scheduled voltage at Tyee and the added line loading, the 69 kV voltage at Wrangell drops to 99.6 percent (68.7 kV). The SEAPA system is ready to move to Stage 3 and energize to the open transformer at Petersburg.

3. Case 4b-01 (0=zero 69 kV load at Petersburg and 1=summer min. 69 kV load at Wrangell) depicts the reclosing from Wrangell to Petersburg with the Petersburg 69 kV transformer open. Both Tyee Lake units are in-service so as to make available both of their reactive absorption capabilities.

   Closing into the deenergized Wrangell to Petersburg circuit adds 10.5 MVAr of capacitive loading to be absorbed by primarily the two Tyee Lake generating units. The two Tyee units both absorb almost their lower reactive limit of -7.34 MVAr (-7.29 MVAr each) and drop their terminal voltages to 90.5 percent (12.48 kV). The two hydro units do just manage to maintain the scheduled 99 percent (68.2 kV) voltage on the Tyee 69 kV bus. Voltages on both the Wrangell and Petersburg 69 kV buses do rise well above 105 to 107.5 percent (74.2 kV) and 108.5 percent (74.8 kV) respectively.

   As discussed earlier, with additional testing and decision making by SEAPA, these high voltages (105 to 110 percent) at Wrangell and Petersburg and the very low voltages (90 to 95 percent) at the generator terminals might be found to be acceptable, but they exceed current policy at both the low and high end of this simulation.

If the Wrangell 7.5 MVAr reactor is out-of-service, Commonwealth proposes an alternative of adjusting the Tyee Lake GSU 69 kV taps from their current No-load Tap 2 position (70.725 kV, 1.025 p.u.) to the GSU Tap 5 position (65.55 kV, 0.95 p.u.). Case 4b-01.2 in Exhibit 1-2 shows our simulation for Stage 3, closing into the dead Petersburg line. With the reduced tap we were able to reduce the scheduled Tyee 69 kV voltage to 95.5 percent (65.9 kV), while maintaining an acceptable 94.9 percent (13.06 kV) generator terminal voltage. The simulation showed that both Wrangell and Petersburg maintained acceptable 69 kV system voltages of 103.6 percent (71.5 kV) and 104.5 percent (72.1 kV) respectively. Cases 1b.2 and 3b-2.2 in Exhibit 1-2 show that with the loss of the Wrangell 7.5 MVAr reactor the change of the GSU tap to position 5 works for the full range of seasonal conditions from Winter Peak to Summer Minimum.

Exhibit E2.4 shows the Stage 3 transient stability response with the revised GSU tap when closing Wrangell into the dead 69 kV circuit to the open Petersburg transformer with a Tyee 69 kV scheduled voltage of 94 percent (64.9 kV):

a. Figure E2.4a, Tyee Unit1 (MW and MVAr), shows that before the circuit is energized (before t = 6 cycles, 0.5 seconds) the Tyee #1 reactive flow (leading or absorbing) is -3 MVAr, when the circuit is energized it quickly peaks at -9.3 MVAr and then settles to a steady -7.3 MVAr.

b. Figure E2.4c, Terminal Voltage (P.U.), shows that before the circuit is energized the Tyee Unit 1 voltage is 96.9 percent (13.4 kV), when the circuit is energized it quickly peaks at 109.2 percent (15.1 kV) and then settles back to 96.9 percent (13.4 kV).

c. Figure E2.4d, Bus Voltage (P.U.), shows that when the circuit is energized the 69 kV voltage at Petersburg quickly peaks at 120.1 percent (82.9 kV) and then settles back within about one-half second to 106.7 percent (73.7 kV).

Exhibit E2.8 shows the identical Stage 3 transient stability simulation as Exhibit E2.4 except that the Tyee 69 kV scheduled voltage is 98 percent (67.6 kV). Figure E2.8d shows that the Petersburg 69 kV Bus voltage settles to an unacceptable high of 111.3 percent (76.8 kV). This demonstrates that when energizing the Wrangell to Petersburg circuit the initial Tyee Lake 69 kV voltage should be between 94 and 96 percent of nominal.

4. Case 3b (previously described) shows the final state after resynchronizing into the Petersburg load and restoring normal service.

CONCLUSIONS

Based on our power flow simulations (steady state analysis), Commonwealth concludes that the SEAPA system can be operated with the Wrangell 7.5 MVAr reactor out-of-service provided that the Tyee Lake 13.8 kV terminal bus can be operated down to 90 percent of nominal or alternatively that the Petersburg and Wrangell 69 kV systems (designed for 138 kV operation) can be operated at emergency voltage levels of 105 to 110 percent of nominal.

With the Wrangell 7.5 MVAr reactor out-of-service, Commonwealth recommends changing the Tyee GSU no-load Tap to Position 5 (65.55 kV). Also, utilizing the possible 2.5 MVAr reactor, improves the adaptability of the SEAPA system to future changes.

We found that energizing the Wrangell to Petersburg 69 kV without the use of the reactor can be accomplished if both Tyee Lake Units are in operation and low initial voltages are scheduled at the Tyee 69 kV bus. Adjusting the Tyee GSU tap to Position 5 and utilizing the 2.5 MVAr reactor, both act to improve the voltage profile across the SEAPA system during the energization cycle.

Our dynamic tests indicate stable system response for the reactor switching at all loading levels. We did observe small signal instability (hunting) in the dynamic simulations, especially when switching the Wrangell Reactor into service. While this is not a serious problem, SEAPA may want to investigate this further.

Based on our past experience with the SEAPA line protection system, no adverse impacts on the line protection are foreseen for operating the SEAPA system with the Wrangell 7.5MVAr reactor out-of-service. Commonwealth does recommend examining the Tyee Lake generator protection scheme and auxiliary systems for operation at low terminal voltages at or possibly below 94 percent (12.97 kV) and for operating the Tyee units at their leading reactive capability limits.

EXHIBITS

Exhibit 1	Power Flow Results
Exhibit 2	Generator Data
Exhibit 3	Loading Scenarios
Exhibit 4	Generator Dispatch
Exhibit D1.0	Reactor Switched Out Winter Peak
Exhibit D1.1	Reactor Switched In Winter Peak
Exhibit D2.0	Reactor Switched Out Summer Minimum Monthly Peak
Exhibit D2.1	Reactor Switched In Summer Minimum Monthly Peak
Exhibit D3.0	Reactor Switched Out Summer Minimum
Exhibit D3.1	Reactor Switched In Summer Minimum
Exhibit E1	Energize Tyee Lake – Wrangell Summer Minimum
Exhibit E2.4	Energize Wrangell – Petersburg Summer Minimum Tyee Lake Vscheduled = 94% (64.9 kV)
Exhibit E2.8	Energize Wrangell – Petersburg Summer Minimum Tyee Lake Vscheduled = 98% (67.6 kV)

POWER FLOW RESULTS

		Petersburg		C Lake	Wrangell	Flow	Tyee1	Tyee2	Swan	Flow	Bailey
		4001	@22.9 kV	4011	3001	Tyee	1001	1002	1020	Swan	2020
		Load		Gen	Load	to	Gen	Gen	Gen	to	Gen
Case 1a					R = 7.5	Wrangell				Bail./Ket.	1, 2 & 3
Winter Peak	P (MW)	12.500		1.400	9.500	22.594	11.000	11.000	22.500	21.661	5.697
w/Reactor	Q (MVAr)	0.688		-0.490	0.523	3.673	4.251	4.251	-1.920	2.593	-1.920
	V	0.92000	1.00035	1.02000	1.00222		1.04216	1.04216	0.99816		1.02000
	Tap	0.9750		0.9200	0.9250		1.0250	1.0250	1.0000		1.0000
	Vhs	0.91727	1.02895	0.94630	0.94127		1.03819		1.00760		1.00760
Case 2a					R = 7.5						
Summer Min.	P (MW)	3.990		1.000	2.850	6.072	2.800	2.800	6.000	5.508	
w/Reactor	Q (MVAr)	0.599		-0.514	0.428	-2.632	-1.243	-1.243	-3.344	0.422	Open
	V	0.91977	1.00010	1.00500	1.00278		0.97936	0.97936	0.99130		
	Tap	1.08125		0.9200	1.00000		1.0250	1.0250	1.0000		Open
	Vhs	1.00567	1.01479	0.93328	1.00981		1.01283		1.00621		1.01368
Case 3a					R = 7.5						
Summer Min/Min	P (MW)	2.000		1.000	1.429	2.544	2.250	2.250		1.936	
w/Reactor	Q (MVAr)	0.300		-0.775	0.214	-3.622	-3.079	-3.079	Open	1.025	Open
	V	0.92352	1.00418	0.99636	1.00507		0.93307	0.93307			
	Tap	1.06250		0.9200	0.98125		1.0250	1.0250	Open		Open
	Vhs	0.99086	1.01145	0.93021	0.98927		0.98023		0.99404		0.99987
Case 1b					R = Out						
Winter Peak	P (MW)	12.500		1.400	9.500	22.492	11.000	11.000	22.500	21.767	5.625
no Reactor	Q (MVAr)	0.688		-0.427	0.523	-4.886	0.018	0.018	-2.119	2.623	0.390
	V	0.91994	1.00028	1.02000	1.00189		1.01554	1.01554	0.99743		1.02000
	Tap	1.0562		1.0000	0.9938		1.0250	1.0250	1.0000		1.0000
	Vhs	0.99039	1.02773	0.94518	1.01092		1.04050		1.00783		0.99648
Case 2b-1					R = Out						
Summer Min.	P (MW)	3.990		1.000	2.850	6.355	2.800	2.800	6.000	5.198	
no Reactor	Q (MVAr)	0.599		-0.775	0.428	-11.284	-5.328	-5.328	-3.303	0.490	Open
	V	0.92664	1.00757	0.99980	1.00667		0.94845	0.94845	0.99146		
	Tap	1.1375		0.9200	1.05625		1.0250	1.0250	1.0000		Open
	Vhs	1.06818	1.01484	0.93333	1.06996		1.01272		1.00623		1.01346
Case 2b-2					R = Out						
Summer Min.	P (MW)	3.990		1.000	2.850	6.353	2.800	2.800	6.000	5.201	
no Reactor	Q (MVAr)	0.599		-0.5359	0.428	-10.974	-6.295	-6.295	-0.863	0.487	Open
Tyee Qmin =	V	0.92062	1.00102	1.00500	0.99961		0.91945	0.91945	1.00315		
-7.34 MVAr	Tap	1.1250		0.9200	1.03125		1.0250	1.0250	1.0000		Open
	Vhs	1.04747	1.01517	0.93363	1.04843		0.99185		1.00619		1.01344
Case 3b-2					R = Out						
Summer Min/Min	P (MW)	2.000		1.000	1.429	2.875	2.250	2.250		1.575	
no Reactor	Q (MVAr)	0.300		-0.775	0.214	-11.610	-6.718	-6.718	Open	1.113	Open
Tyee Qmin =	V	0.92373	1.00441	0.99659	0.99935		0.90385	0.90385			
-7.34 MVAr	Tap	1.13125		0.9200	1.05000		1.0250	1.0250	Open		Open
	Vhs	1.05518	1.01168	0.93042	1.05259		0.98025		0.99391		0.99945

POWER FLOW RESULTS

		Petersburg		C Lake	Wrangell	Flow	Tyee1	Tyee2	Swan	Flow	Bailey
		4001	@22.9 kV	4011	3001	Tyee	1001	1002	1020	Swan	2020
		Load		Gen	Load	to	Gen	Gen	Gen	to	Gen
Case 3c-2					R = 2.5	Wrangell				Bail./Ket.	1, 2 & 3
Summer Min/Min	P (MW)	2.000		1.000	1.429	2.725	2.250	2.250		1.743	
2.5 MVAr Reactor	Q (MVAr)	0.300		-0.775	0.214	-9.075	-5.474	-5.474	Open	1.438	Open
Tyee Qmin =	V	0.91971	1.00003		1.00171		0.92514	0.92514			
-7.34 MVAr	Tap	1.12500		0.9200	1.03750		1.0250	1.0250	Open		Open
	Vhs	1.04493	1.00731	0.92640	1.04252		0.99106		1.00206		0.99637
Energize Wrangell - Petersburg											
Case 4b-x0	Stage 1				R = Out						
P=Open/W=0	P (MW)	0.000			0.000	0.012	2.000	0.000		1.971	
no Reactor	Q (MVAr)	0.000		Open	0.000	-3.048	-4.754	0.000	Open	2.093	Open
Tyee Qmin =	V						0.95034				
-7.34 MVAr	Tap	Open		0.9200	Open		1.0250	Open	Open		Open
	Vhs	Open			1.02298		1.01160		1.01749		1.01706
Case 4b-x1	Stage 2				R = Out						
P=Open/W=1	P (MW)	0.000			1.429	1.446	2.000	2.000		2.533	
no Reactor	Q (MVAr)	0.000		Open	0.214	-2.663	-2.533	-2.533	Open	1.280	Open
Tyee Qmin =	V				0.99936		0.94852	0.94852			
-7.34 MVAr	Tap	Open		0.9200	0.99375		1.0250	1.0250	Open		Open
	Vhs	Open			0.99627		0.99194		1.00297		1.00691
Case 4b-01	Stage 3				R = Out						
P=0/W=1	P (MW)	0.000			1.429	1.904	2.000	2.000		2.029	
no Reactor	Q (MVAr)	0.000		Open	0.214	-13.084	-7.289	-7.289	Open	1.297	Open
Tyee Qmin =	V				1.00264		0.90546	0.90546			
-7.34 MVAr	Tap	Open		0.9200	1.06875		1.0250	1.0250	Open		Open
	Vhs	1.08446			1.07489		0.98895		1.00058		1.00474
Case 4b-01.2	Stage 3*				R = Out						
P=0/W=1	P (MW)	0.000			1.429	1.878	2.000	2.000		2.059	
no Reactor	Q (MVAr)	0.000		Open	0.214	-12.138	-7.327	-7.327	Open	0.109	Open
Tyee Qmin =	V				1.00111		0.94643	0.94643			
-7.34 MVAr	Tap	Open		0.9200	1.03125		0.9500	0.9500	Open		Open
*Change Tyee Tap	Vhs	1.04485			1.03561		0.95326		0.97391		0.98522
Case 1b.2					R = Out						
Winter Peak	P (MW)	12.500		1.400	9.500	22.639	11.000	11.000	22.500	21.647	5.697
no Reactor	Q (MVAr)	0.688		-0.447	0.523	-3.133	-1.503	-1.503	1.484	1.354	2.410
Change Tyee Tap	V	0.92085	1.00127	1.02000	1.00434		1.03767	1.03767	1.01432		1.02000
	Tap	0.9938		0.9200	0.9375		0.9500	0.9500	1.0000		1.0000
	Vhs	0.93284	1.02814	0.94556	0.95594		0.99894		1.00760		1.00438
Case 3b-2.2					R = Out						
Summer Min/Min	P (MW)	2.000		1.000	1.429	2.855	2.250	2.250		1.590	
no Reactor	Q (MVAr)	0.300		-0.775	0.214	-11.019	-6.686	-6.686	Open	0.387	Open
Tyee Qmin =	V	0.92231	1.00286	0.99503	1.00612		0.94929	0.94929			
-7.34 MVAr	Tap	1.10625		0.9200	1.01875		0.9500	0.9500	Open		Open
Change Tyee Tap	Vhs	1.03034	1.01015	0.92901	1.02185		0.95838		0.97758		0.98750

GENERATION

Bus	Name	Id	Unit MVA	PF	Pmax MW	Pmin MW (0.74)	Qmax MVAr	Qmin MVAr
1001	Tyee Lake	1	12.5	0.90	11.0	2.0	5.328	-3.903
1002	Hydro	2	12.5	0.90	11.0	2.0	5.328	-3.903
1020	Swan Lake	1	12.5	0.90	11.25	6.0	5.812	-3.903
1020	Hydro	2	12.5	0.90	11.25	6.0	5.812	-3.903
4003	Main St	350	0.438	0.80	0.35	0.260	0.263	-0.170
	Diesel	398	1.000	0.80	0.80	0.594	0.600	-0.387
		399	0.750	0.80	0.60	0.446	0.450	-0.290
4002		20-1	2.600	0.80	2.10	1.500	1.560	-1.007
		20-2	2.600	0.80	2.10	1.500	1.560	-1.007
4020	Crystal Lake	1	2.000	0.80	1.600	1.189	1.200	-0.774
	Hydro	2	0.500	0.80	0.400	0.297	0.3	-0.194
3002	Wrangell	2	2.5	0.80	2.0	1.486	1.500	-0.968
	Diesel	3	2.5	0.80	2.0	1.486	1.500	-0.968
		4	2.5	0.80	2.0	1.486	1.500	-0.968
		5	2.625	0.80	2.096	1.557	1.572	-1.017
2262	Point Higgins	1	2.281	0.80	1.6	1.189	1.369	-0.883
2263	Hydro	2	2.281	0.80	1.6	1.189	1.369	-0.883
2020	Bailey	1	5.625	0.80	3.5	2.600	2.847419	-2.178
	Diesel	2	5.625	0.80	3.5	2.600	2.847	-2.178
		3	8.063	0.80	5.4	4.011	4.393	-3.122
2024	Bailey	4	13.163	0.80	10.5	7.800	7.870	-5.097
2142	Ketchikan	3	1.750	0.80	1.4	1.300	1.050	-0.678
	Hydro	4	1.750	0.80	1.4	1.300	1.050	-0.678
		5	1.750	0.80	1.4	1.300	1.050	-0.678
2171	Beaver Falls	1	2.000	0.80	1.200	0.891	0.933	-0.774
	Hydro	3	2.5	0.80	2.000	1.486	1.8656	-0.968
		4	2.5	0.80	2.000	1.486	1.8656	-0.968
2181	Silvis Glen Hy	1	2.5	0.85	2.125	1.579	1.317	-0.906

Bailey Diesels
2012
5.848

P-Light Load (less Than) MW	Qmax MVAr	Qmin MVAr
5	7.969	-7.341
5	7.969	-7.341
5	7.969	-7.341
5	7.969	-7.341

LOAD

Bus	Name	BkV	Ketchikan Load %	Case 1a Winter Peak (2012) Pload	Qload	PF	Q/P
4001	Petersburg	22.9		12.500	0.688	99.7%	0.05500
3001	Wrangell	12.47		9.500	0.523	99.7%	0.05500
2221	Ward Cove	12.47	16%	5.568	0.306	99.7%	0.05500
2241	GFP	2.4	1%	0.280	0.015	99.7%	0.05500
2261	Port Higgins	12.47	12%	4.062	0.223	99.7%	0.05500
2111	Bethe	12.47	16%	5.498	0.302	99.7%	0.05500
2131	Port West	12.47	18%	6.198	0.341	99.7%	0.05500
2141	Ketchikan	12.47	30%	10.575	0.582	99.7%	0.05500
2161	Mt Point	12.47	8%	2.836	0.156	99.7%	0.05500
	System Total		100%	57.016	3.136	99.7%	0.05500

Pet., Wra. =	22.000	
Ketchikan Load =	35.016	
Losses	3.332	5.5%
Gen	60.348	

Pet. & Wra.

2011	17.100
2012	22.000
Growth	128.7%

Ketcikan

2011	27.217
2012	35.016
Growth	128.7%

Losses

2011	2.183	
2012	3.332	Linear Fraction
LossF	152.6%	0.35

Bus	Name	BkV	Ketchikan Load %	Case 2a Summer Minimum (2011) Pload	Qload	PF	Q/P	P-Ratio SMin/WPk
4001	Petersburg	22.9		3.990	0.599	97.8%	0.15000	0.3192
3001	Wrangell	12.47		2.850	0.428	97.8%	0.15000	0.3000
2221	Ward Cove	12.47	16%	1.929	0.289	97.8%	0.15000	0.3464
2241	GFP	2.4	1%	0.097	0.015	97.8%	0.15000	0.3464
2261	Port Higgins	12.47	12%	1.407	0.211	97.8%	0.15000	0.3464
2111	Bethe	12.47	16%	1.905	0.286	97.8%	0.15000	0.3464
2131	Port West	12.47	18%	2.147	0.322	97.8%	0.15000	0.3464
2141	Ketchikan	12.47	30%	3.664	0.550	97.8%	0.15000	0.3464
2161	Mt Point	12.47	8%	0.983	0.147	97.8%	0.15000	0.3464
	System Total		100%	18.971	2.846	97.8%	0.15000	0.3327

Pet., Wra. =	6.840	
Ketchikan Load =	12.131	
Losses	0.529	2.7%
Gen	19.500	

Bus	Name	BkV	Ketchikan Load %	Case 3a Summer Min/Min (2011) Pload	Qload	PF	Q/P	P-Ratio SMM/Smin
4001	Petersburg	22.9		2.000	0.300	97.8%	0.15000	0.5013
3001	Wrangell	12.47		1.429	0.214	97.8%	0.15000	0.5013
2221	Ward Cove	12.47	16%	0.967	0.145	97.8%	0.15000	0.5013
2241	GFP	2.4	1%	0.049	0.007	97.8%	0.15000	0.5013
2261	Port Higgins	12.47	12%	0.705	0.106	97.8%	0.15000	0.5013
2111	Bethe	12.47	16%	0.955	0.143	97.8%	0.15000	0.5013
2131	Port West	12.47	18%	1.076	0.161	97.8%	0.15000	0.5013
2141	Ketchikan	12.47	30%	1.836	0.275	97.8%	0.15000	0.5013
2161	Mt Point	12.47	8%	0.493	0.074	97.8%	0.15000	0.5013
	System Total		100%	9.509	1.426	97.8%	0.15000	0.5013

Pet., Wra. =	3.429	
Ketchikan Load =	6.081	
Losses	0.244	2.5%
Gen	9.753	

DISPATCH

			Case 1a Winter Peak Dispatch				Case 2a Summer Min. Dispatch				Case 3a Summer Min/Min Dispatch			
Bus	Name	Id	Pgen	Qgen	Vsch		Pgen	Qgen	Vsch		Pgen	Qgen	Vsch	
1001	Tyee Lake	1	11.000	1.798	1.011	HS	2.800	-6.000	1.000	HS	2.177	-6.000	0.990	HS
1002	Hydro	2	11.000	1.798	1.011	HS	2.800	-6.000	1.000	HS	2.177	-6.000	0.990	HS
1020	Swan Lake	1	11.250	0.159	1.007	HS	6.000	-0.092	1.014	HS	0.000	0.000		HS
	Hydro	2	11.250	0.159	1.007	HS				HS				HS
			22.500	0.317			6.000	-0.092			0.000	0.000		
4003	Main St	350				LS				LS				LS
	Diesel	398				LS				LS				LS
		399				LS				LS				LS
4002		20-1				LS				LS				LS
		20-2				LS				LS				LS
4020	Crystal Lake	1	1.400	-0.427	1.020	LS	1.000	-0.484	0.980	LS	1.000	-0.484	0.980	LS
	Hydro	2				LS				LS				LS
3002	Wrangell	2				LS				LS				LS
	Diesel	3				LS				LS				LS
		4				LS				LS				LS
		5				LS				LS				LS
2262	Point Higgins	1				LS				LS				LS
2263	Hydro	2				LS				LS				LS
2020	Bailey	1	2.924	0.900	1.020	LS				LS				LS
	Diesel	2	2.924	0.900	1.020	LS				LS				LS
		3				LS				LS				LS
2024	Bailey	4				LS				LS				LS
2142	Ketchikan	3	0.833	0.776	1.020	LS	0.300	-0.144	0.980	LS	0.000	0.000		LS
	Hydro	4	0.833	0.776	1.020	LS	0.300	-0.144	0.980	LS	0.000	0.000		LS
		5	0.833	0.776	1.020	LS	0.300	-0.144	0.980	LS	0.000	0.000		LS
			2.500	2.327			0.900	-0.432			0.000	0.000		
2171	Beaver Falls	1	1.015	0.309	1.020	LS	1.015	0.309	0.980	LS	1.015	0.309	0.980	LS
	Hydro	3	1.692	0.515	1.020	LS	1.692	0.515	0.980	LS	1.692	0.515	0.980	LS
		4	1.692	0.515	1.020	LS	1.692	0.515	0.980	LS	1.692	0.515	0.980	LS
			4.400	1.340			4.400	1.340			4.400	1.340		
2181	Silvis Glen Hy	1	1.700	0.251	1.020	LS	1.600	-0.609	0.980	LS	0.000	0.000		LS
			54.500	7.405			19.500	-12.277			9.753	-11.144		
			44.500	3.913	Tyee & Swan		11.600	-13.000			4.353	-13.340		
			10.000	3.491	Small Hydro		7.900	0.722			5.400	2.196		
			5.848	1.800	Bailey #1&2		0.000	0.000			0.000	0.000		
			60.348	9.205			19.500	-12.277			9.753	-11.144		

Figure D1.0a
Case 1d-0 Winter Peak
Wrangell Reactor Switched Out-of-service

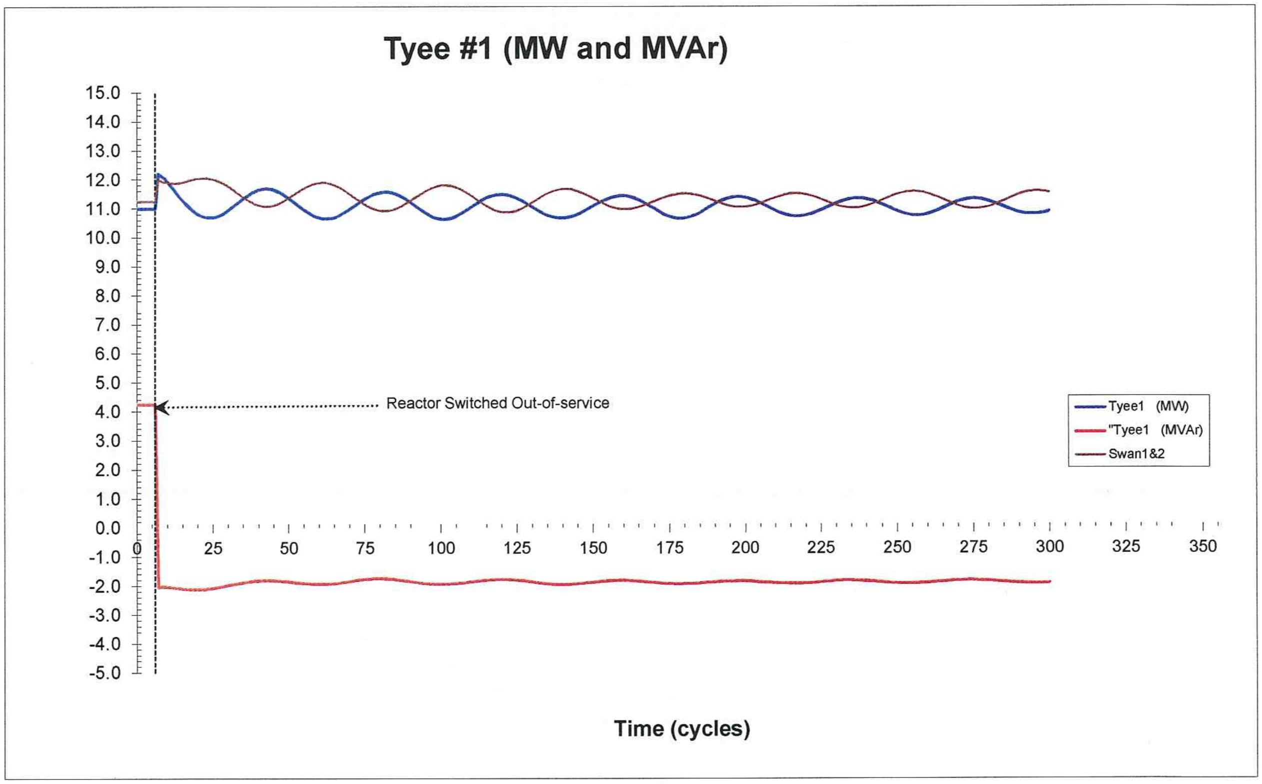
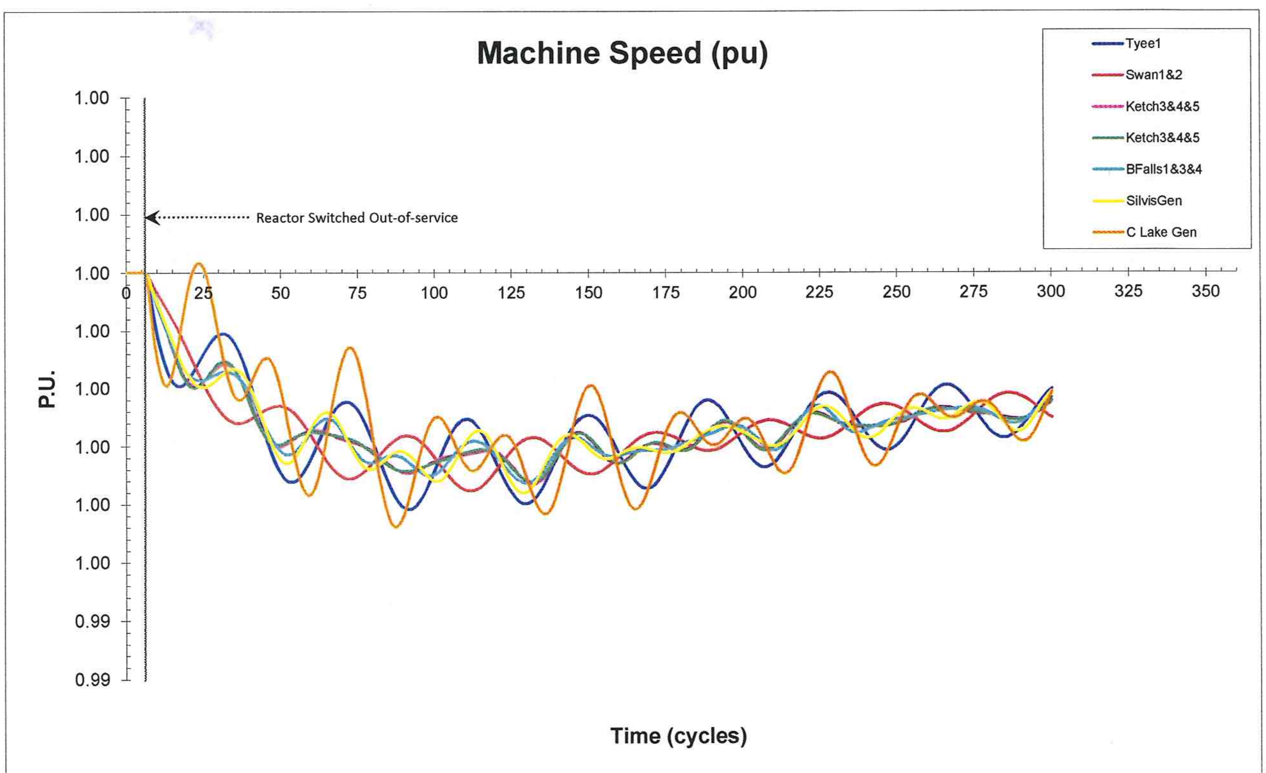


Figure D1.0b
Case 1d-0 Winter Peak
Wrangell Reactor Switched Out-of-service



File Case1d0_WrReactorOut.re

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Figure D1.0c
Case 1d-0 Winter Peak
Wrangell Reactor Switched Out-of-service

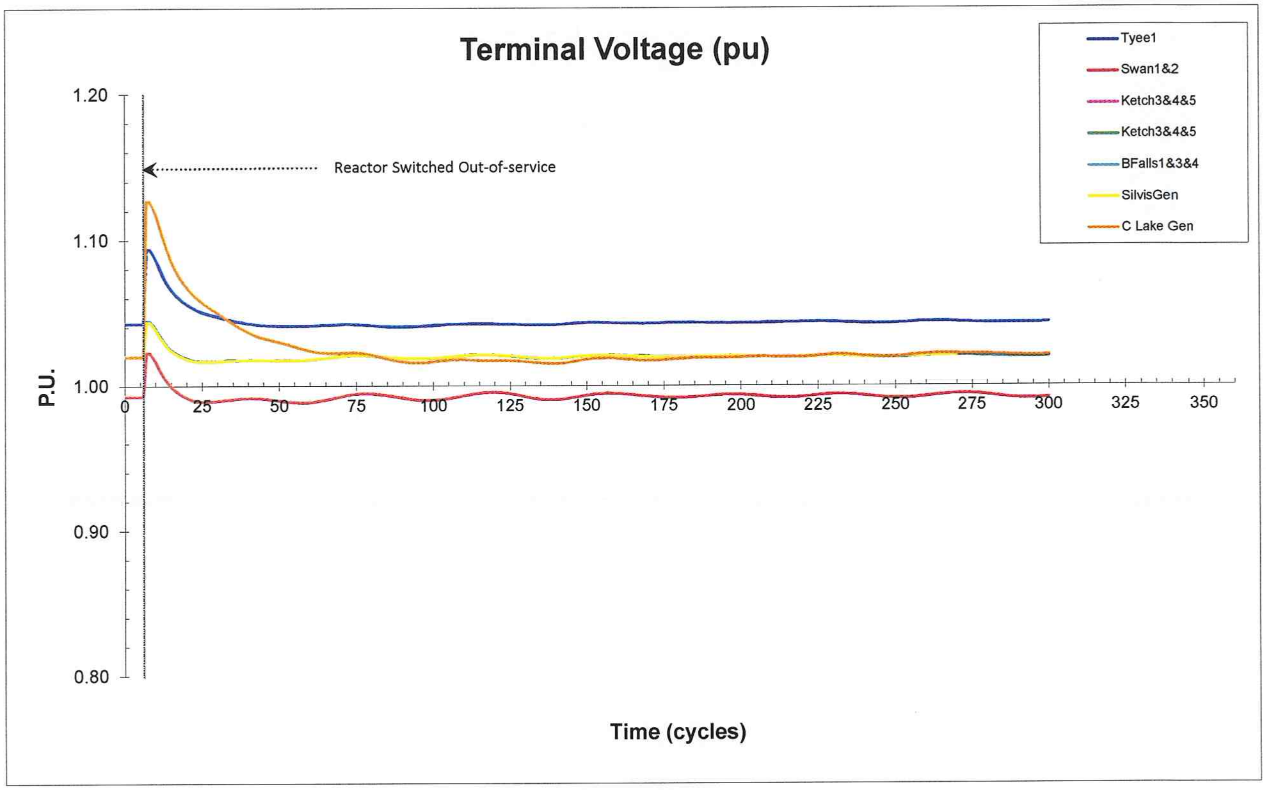

Figure D1.0d
Case 1d-0 Winter Peak
Wrangell Reactor Switched Out-of-service

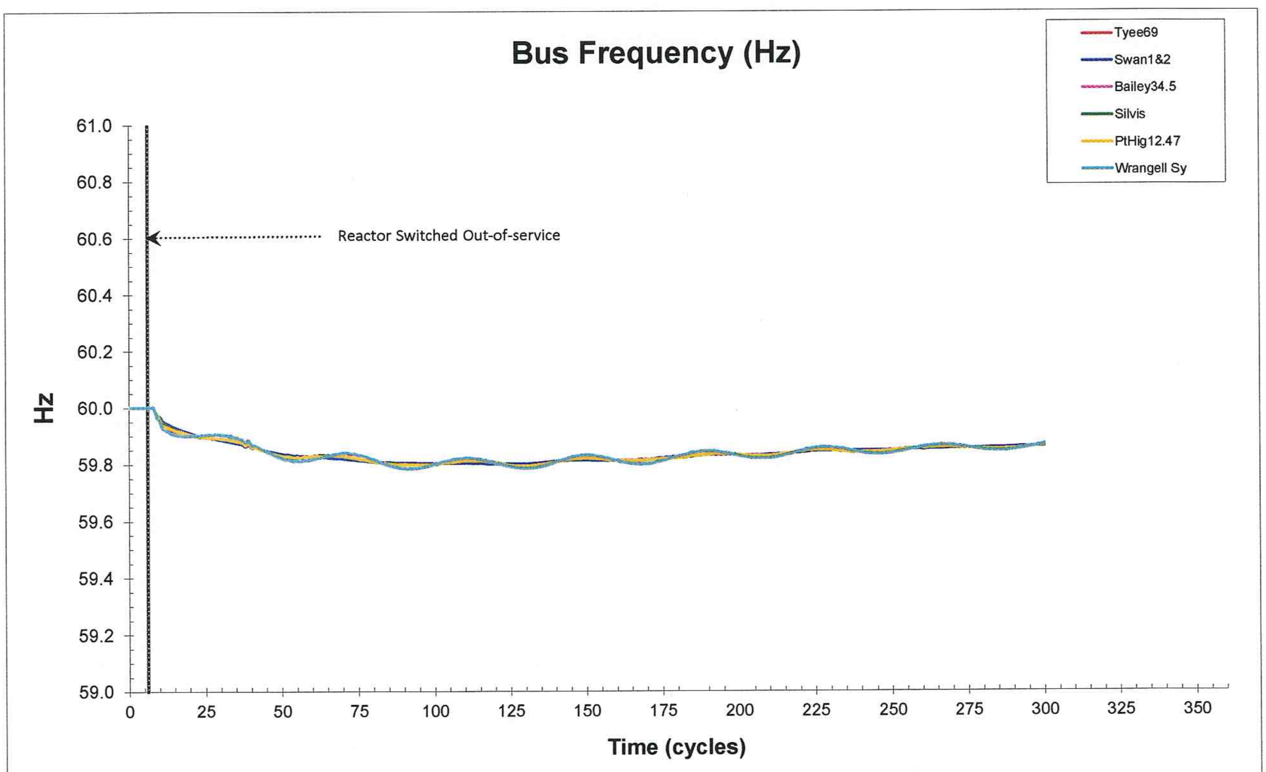

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Figure D1.0e
Case 1d-0 Winter Peak
Wrangell Reactor Switched Out-of-service

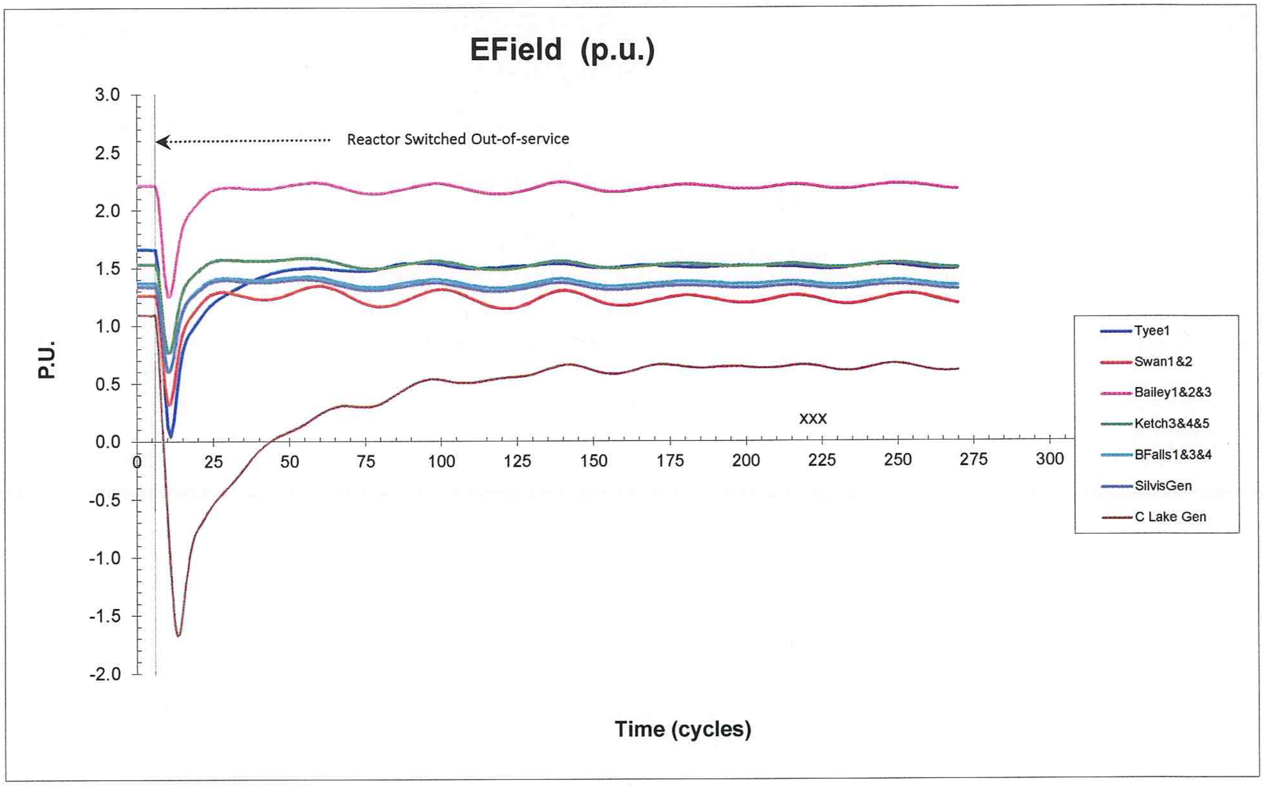
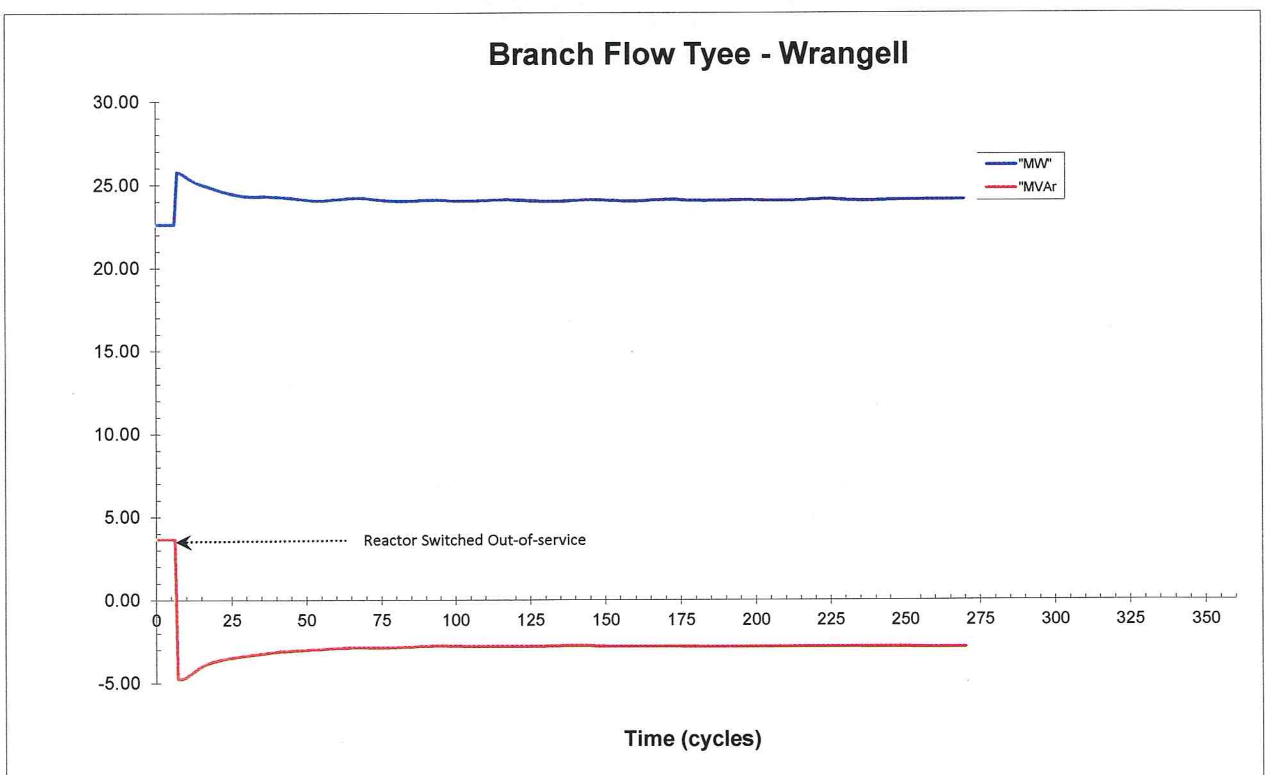


Figure D1.0f
Case 1d-0 Winter Peak
Wrangell Reactor Switched Out-of-service



File Case1d0_WrReactorOut.re

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Figure D1.1a
Case 1d-1 Winter Peak
Wrangell Reactor Switched In-service

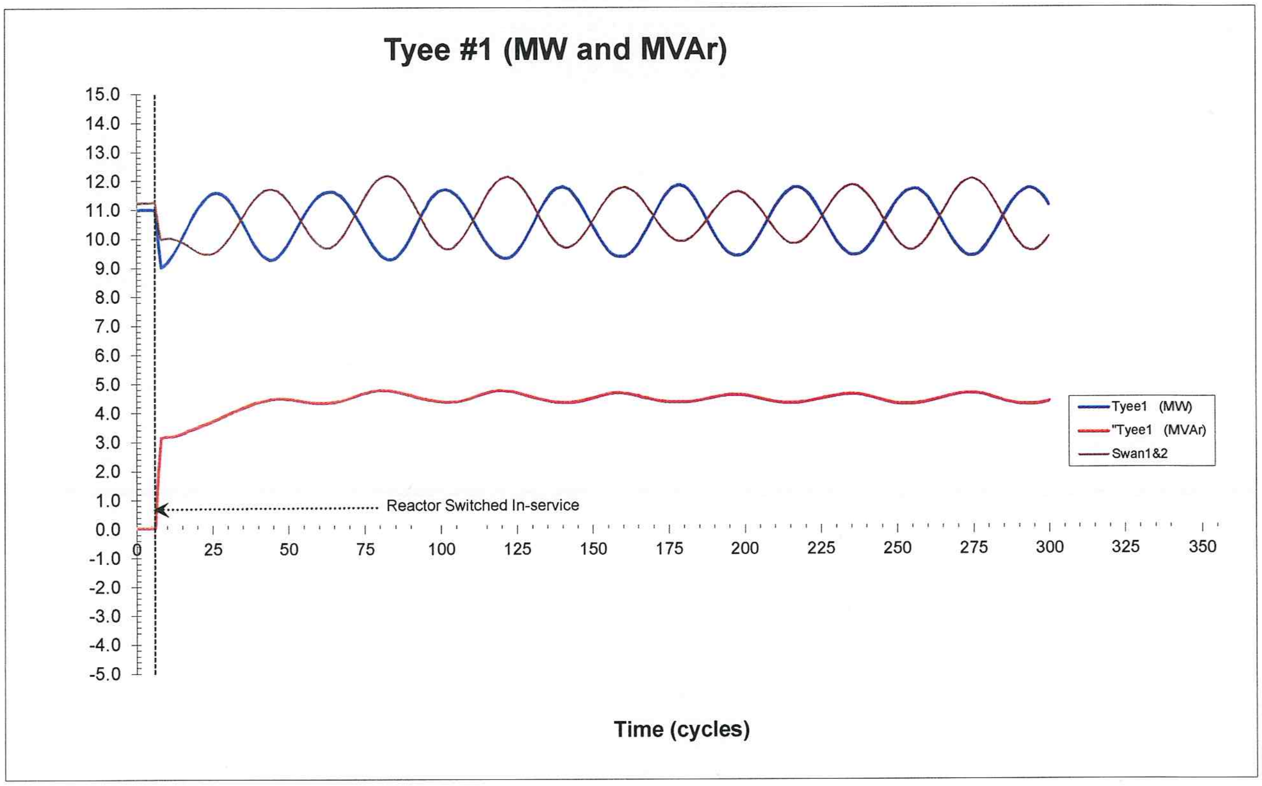
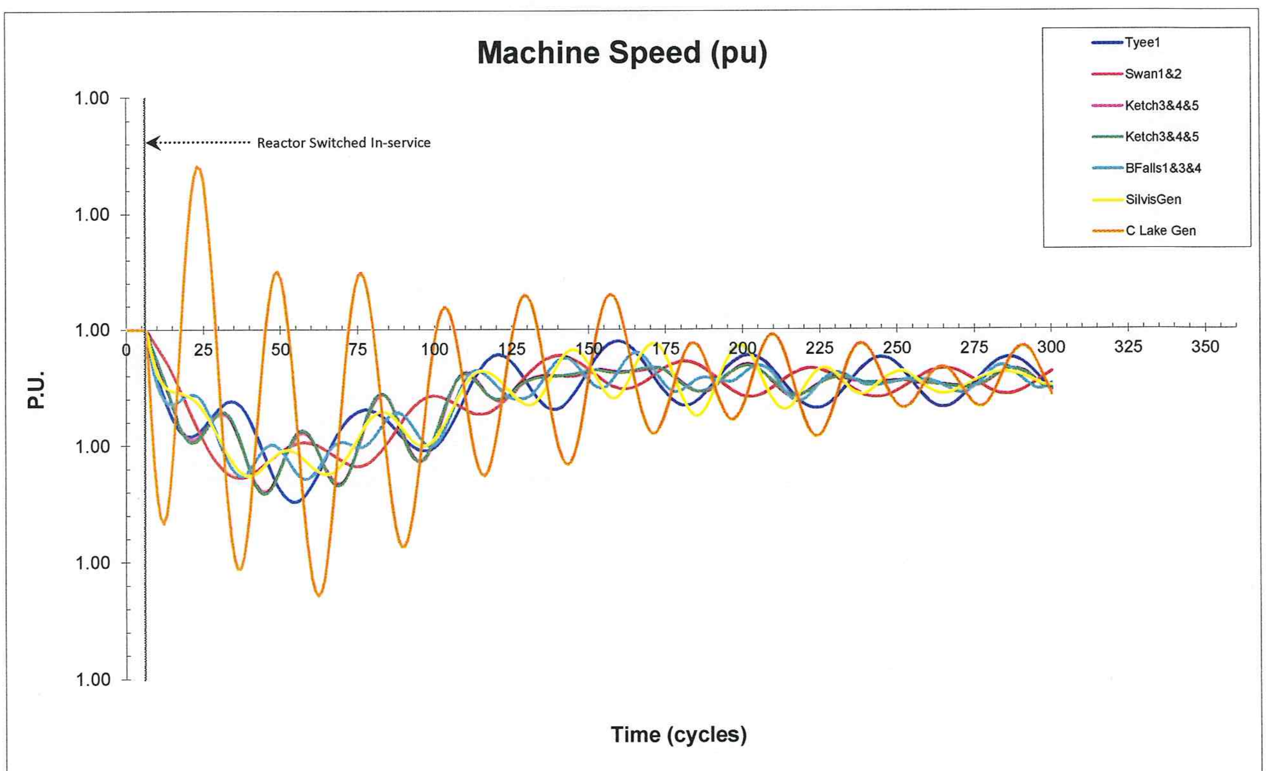


Figure D1.1b
Case 1d-1 Winter Peak
Wrangell Reactor Switched In-service



File Case1d1_WrReactorIn.re

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Figure D1.1c
Case 1d-1 Winter Peak
Wrangell Reactor Switched In-service

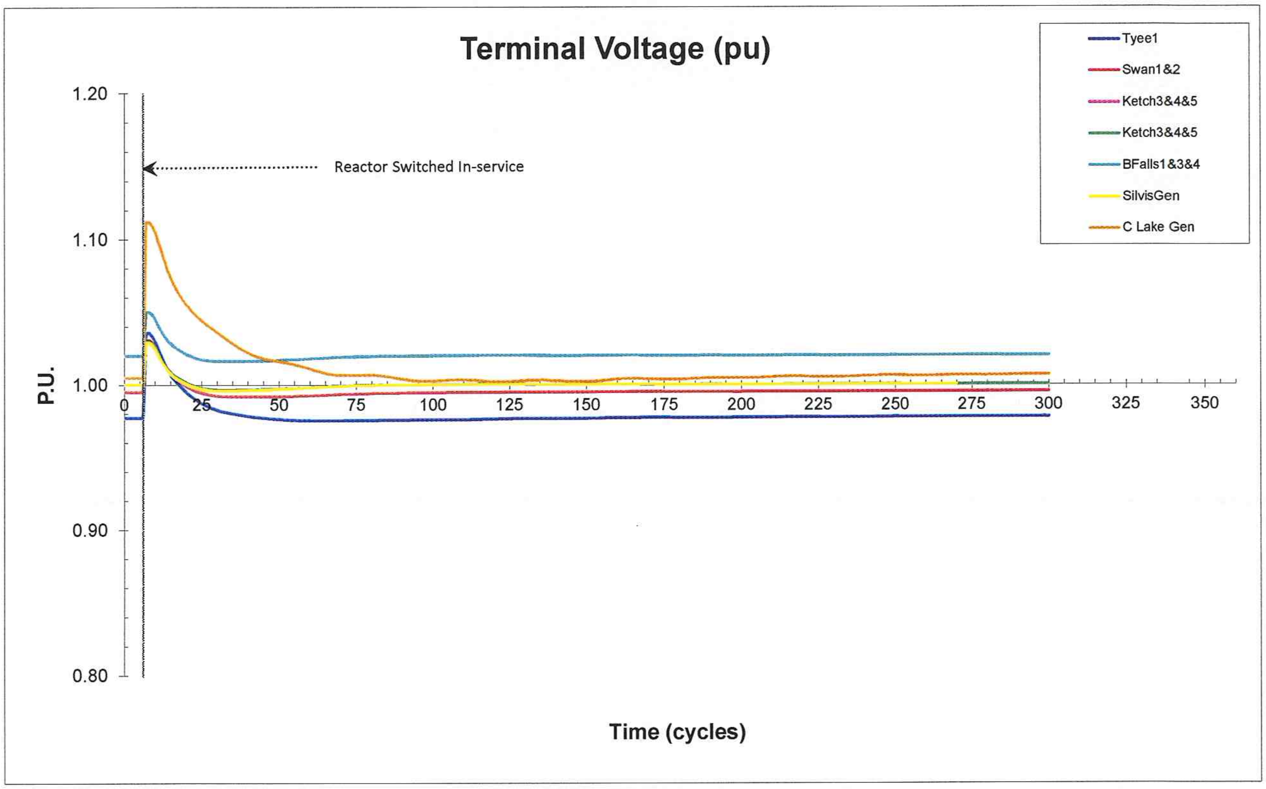
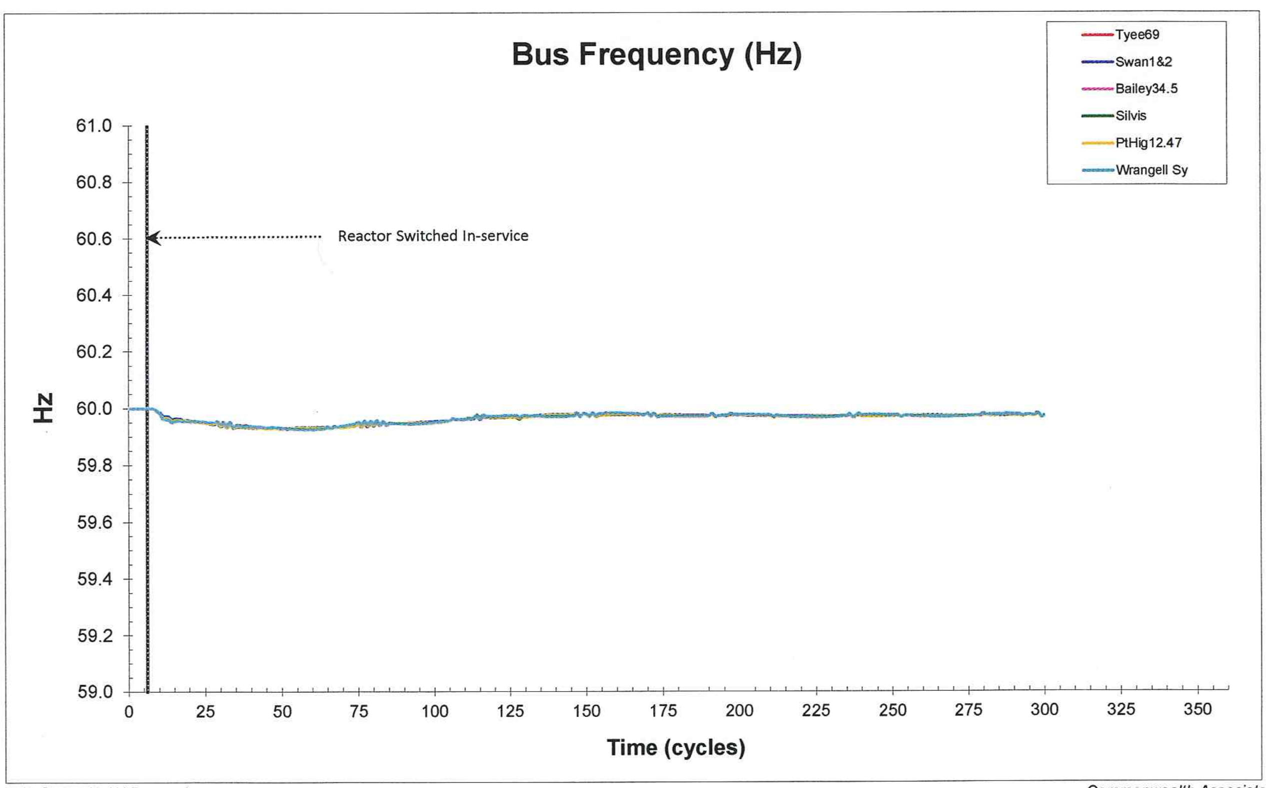


Figure D1.1d
Case 1d-1 Winter Peak
Wrangell Reactor Switched In-service



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Commonwealth Associates

Figure D1.1e
Case 1d-1 Winter Peak
Wrangell Reactor Switched In-service

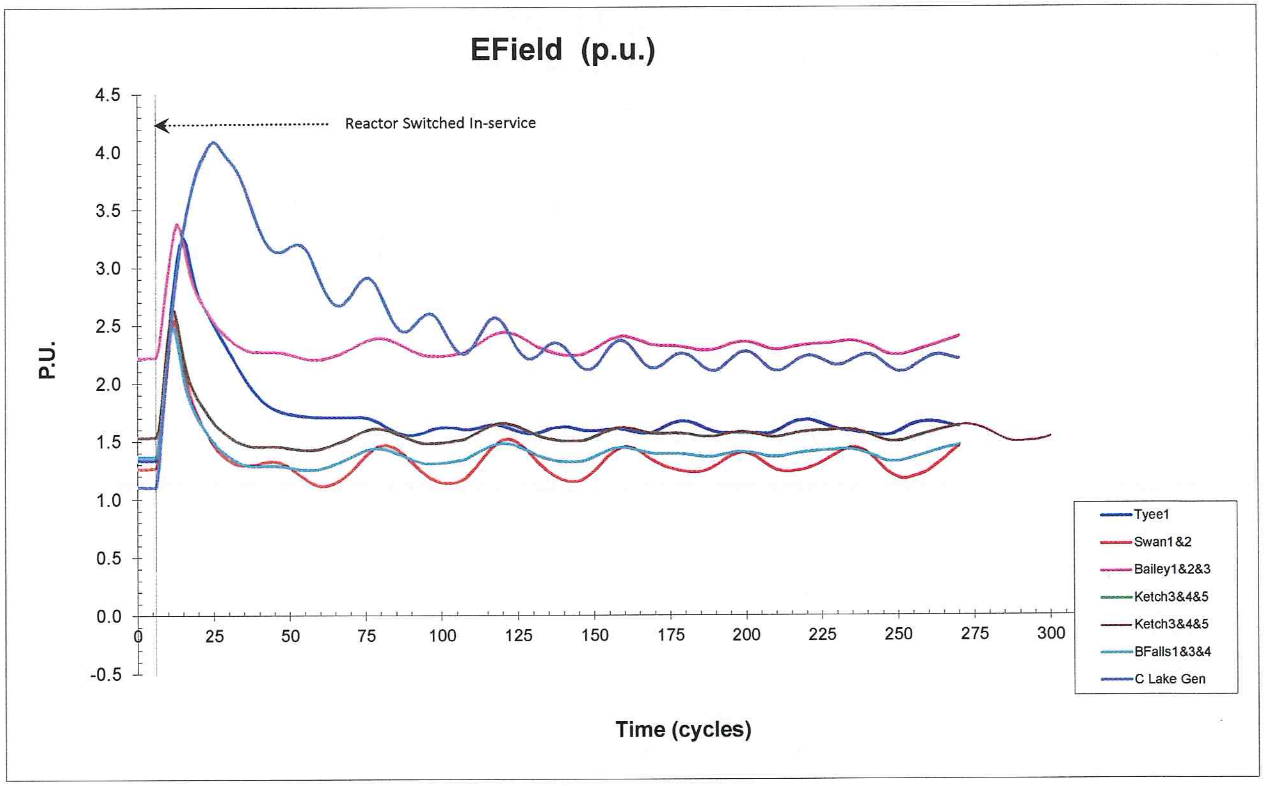
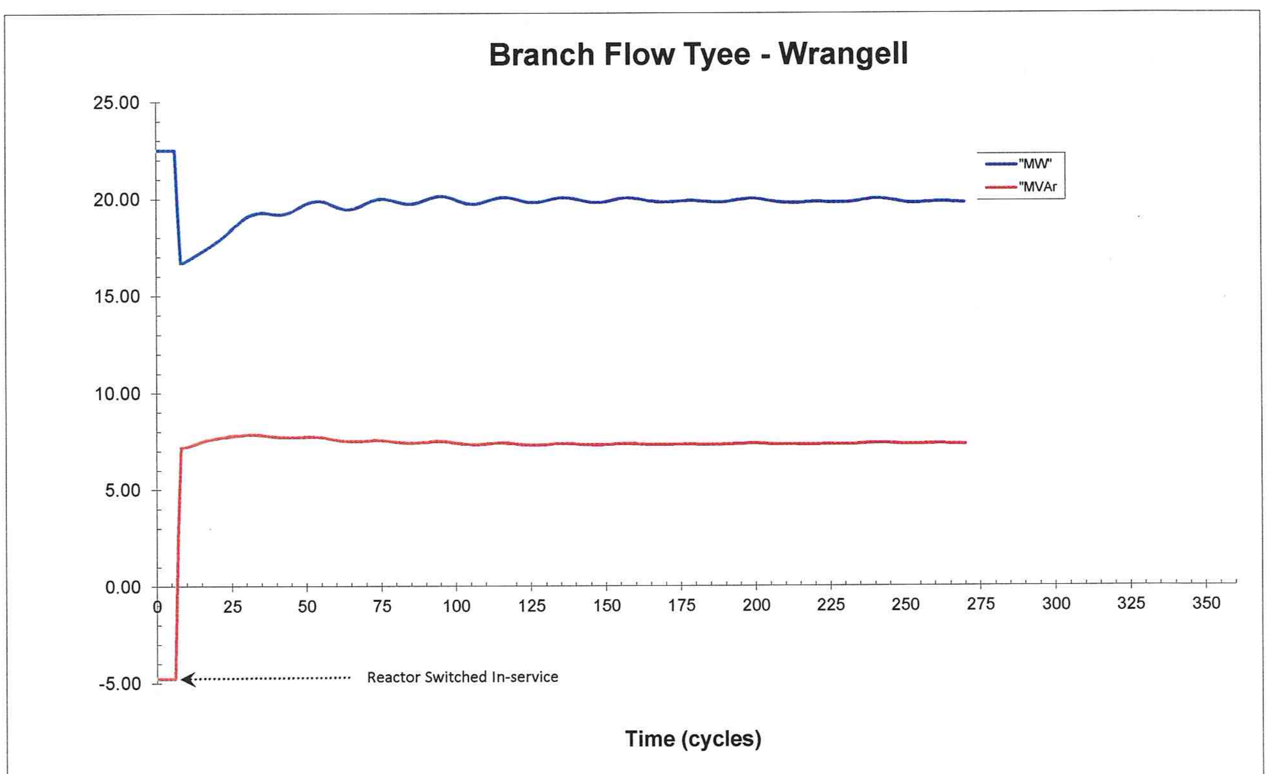


Figure D1.1f
Case 1d-1 Winter Peak
Wrangell Reactor Switched In-service



File Case1d1_WrReactorIn.re

Figure D2.0a
Case 2d-0 Summer Minimum Monthly Peak
Wrangell Reactor Switched Out-of-service

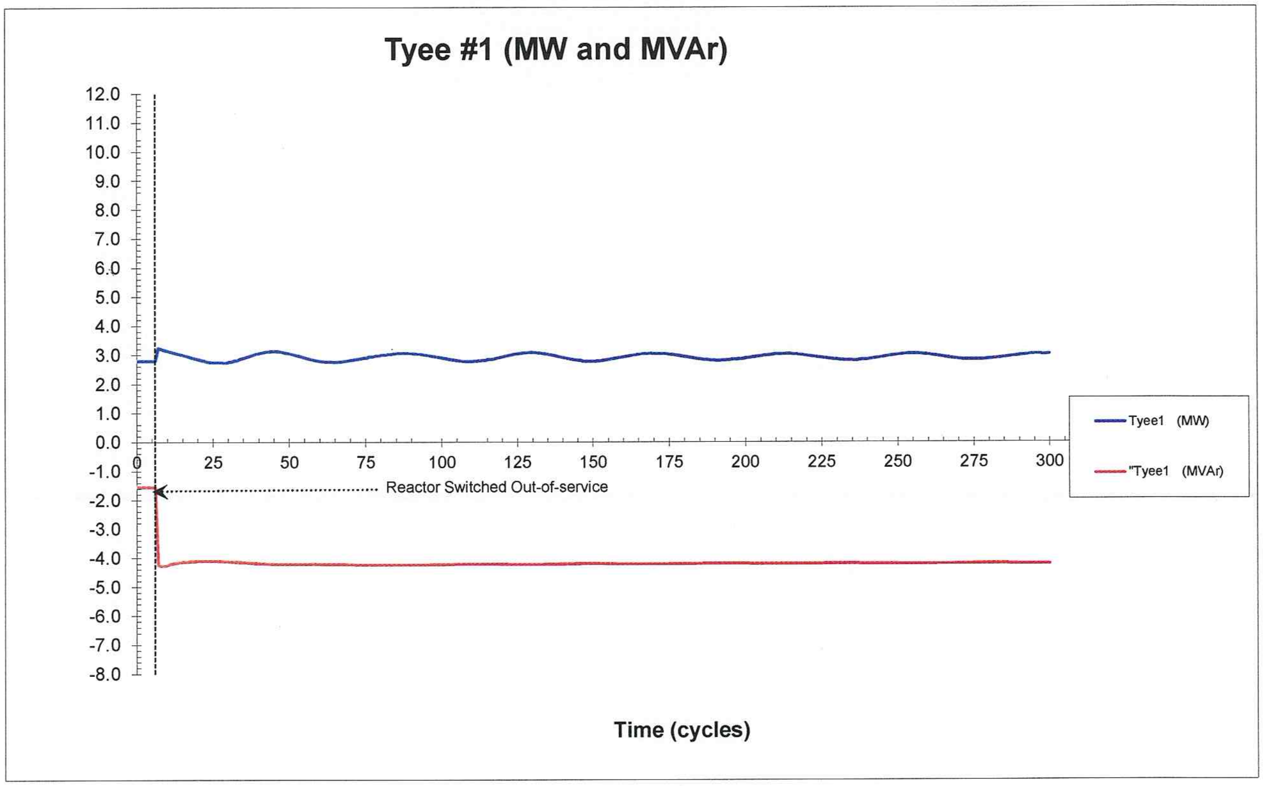
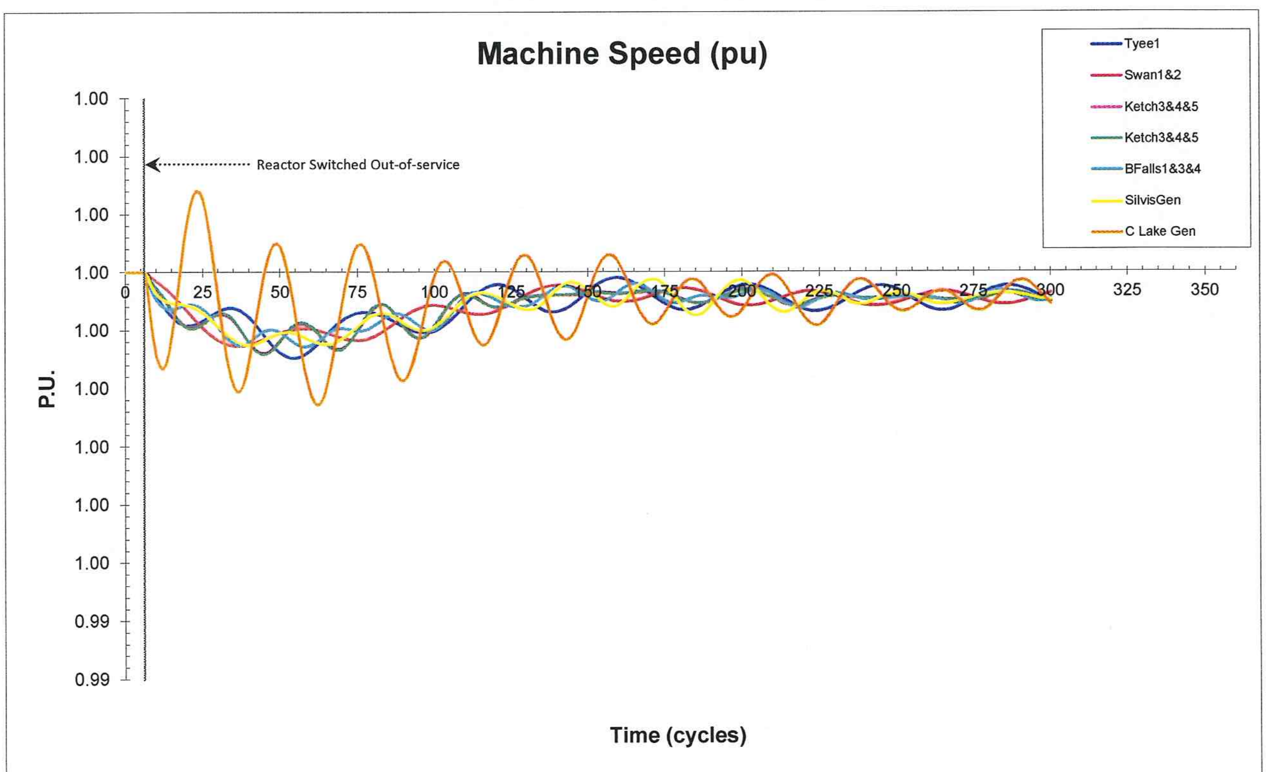


Figure D2.0b
Case 2d-0 Summer Minimum Monthly Peak
Wrangell Reactor Switched Out-of-service



File Case2d0_WrReactorOut.re

Commonwealth Associates

Figure D2.0c
Case 2d-0 Summer Minimum Monthly Peak
Wrangell Reactor Switched Out-of-service

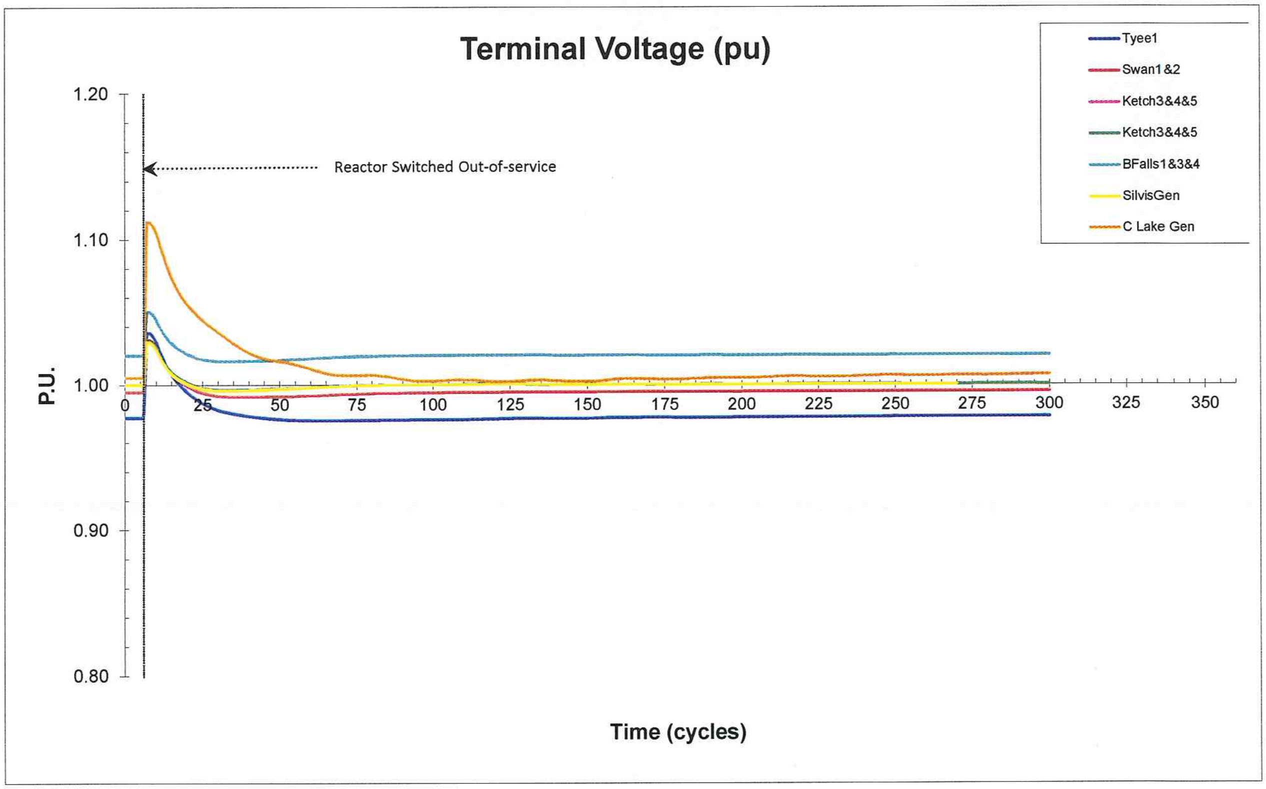
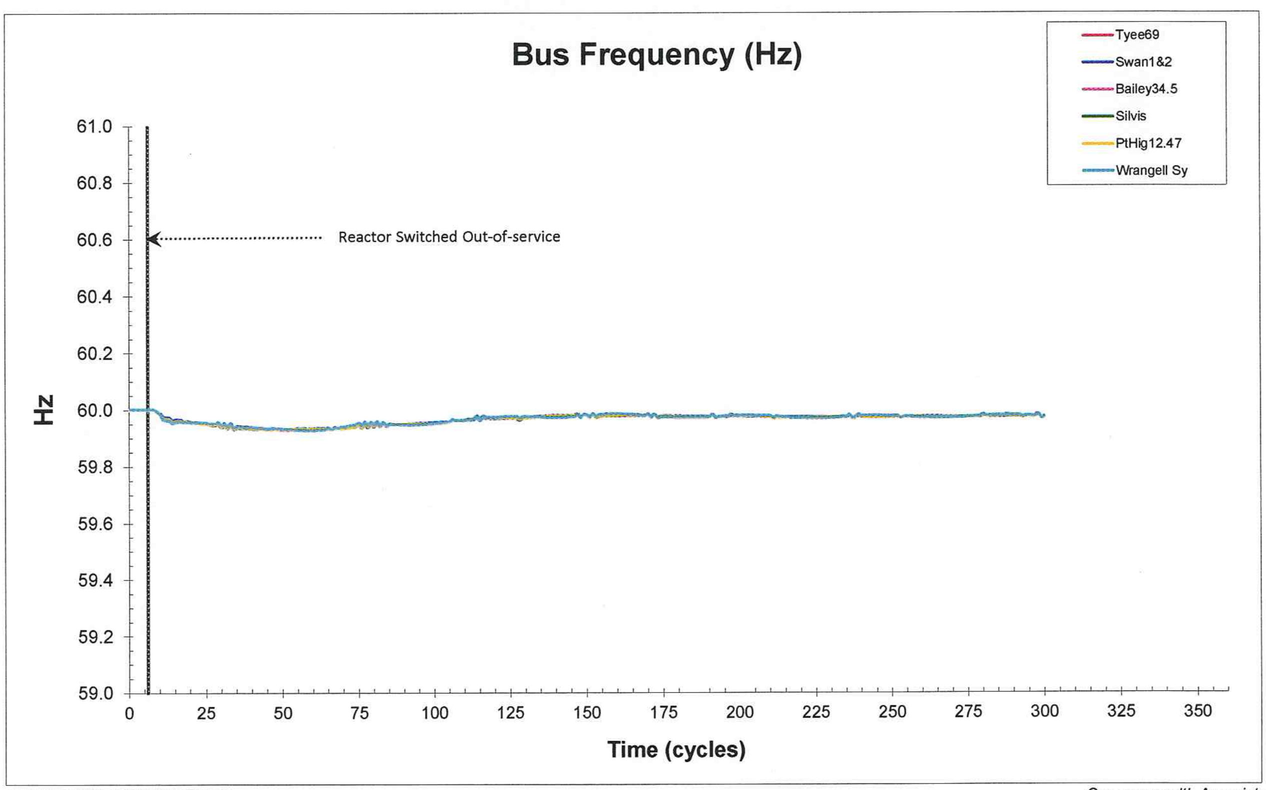


Figure D2.0d
Case 2d-0 Summer Minimum Monthly Peak
Wrangell Reactor Switched Out-of-service



File Case2d0_WrReactorOut.re

Commonwealth Associates

Figure D2.0e
Case 2d-0 Summer Minimum Monthly Peak
Wrangell Reactor Switched Out-of-service

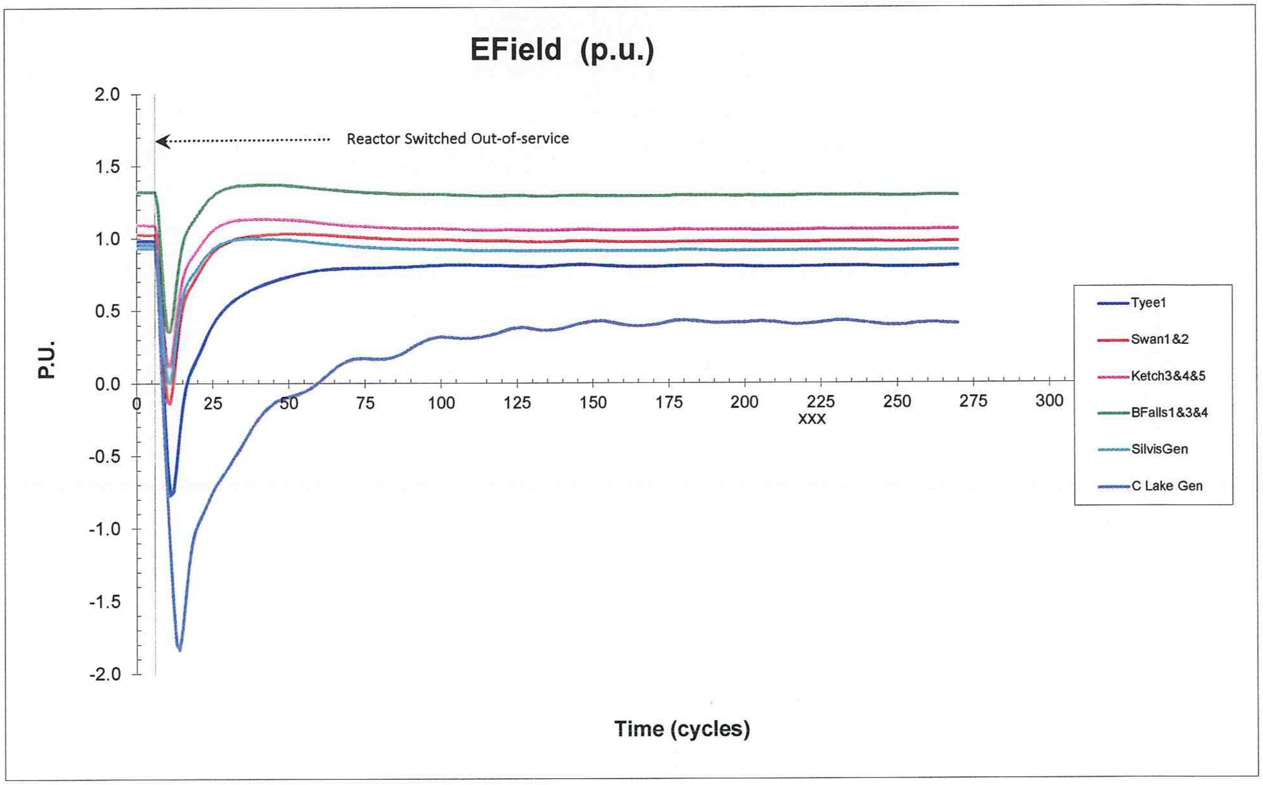
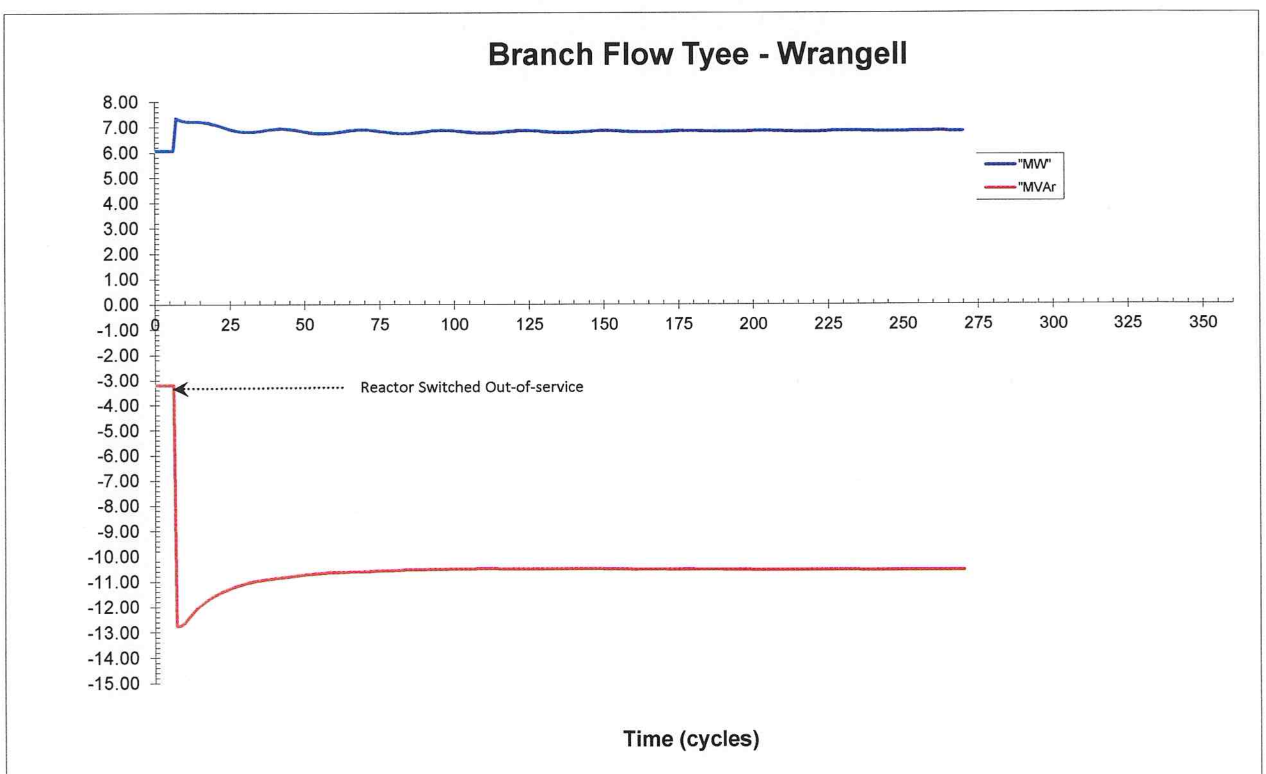


Figure D2.0f
Case 2d-0 Summer Minimum Monthly Peak
Wrangell Reactor Switched Out-of-service



File Case2d0_WrReactorOut.re

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Figure D2.1a
Case 2d-1 Summer Minimum Monthly Peak
Wrangell Reactor Switched In-service

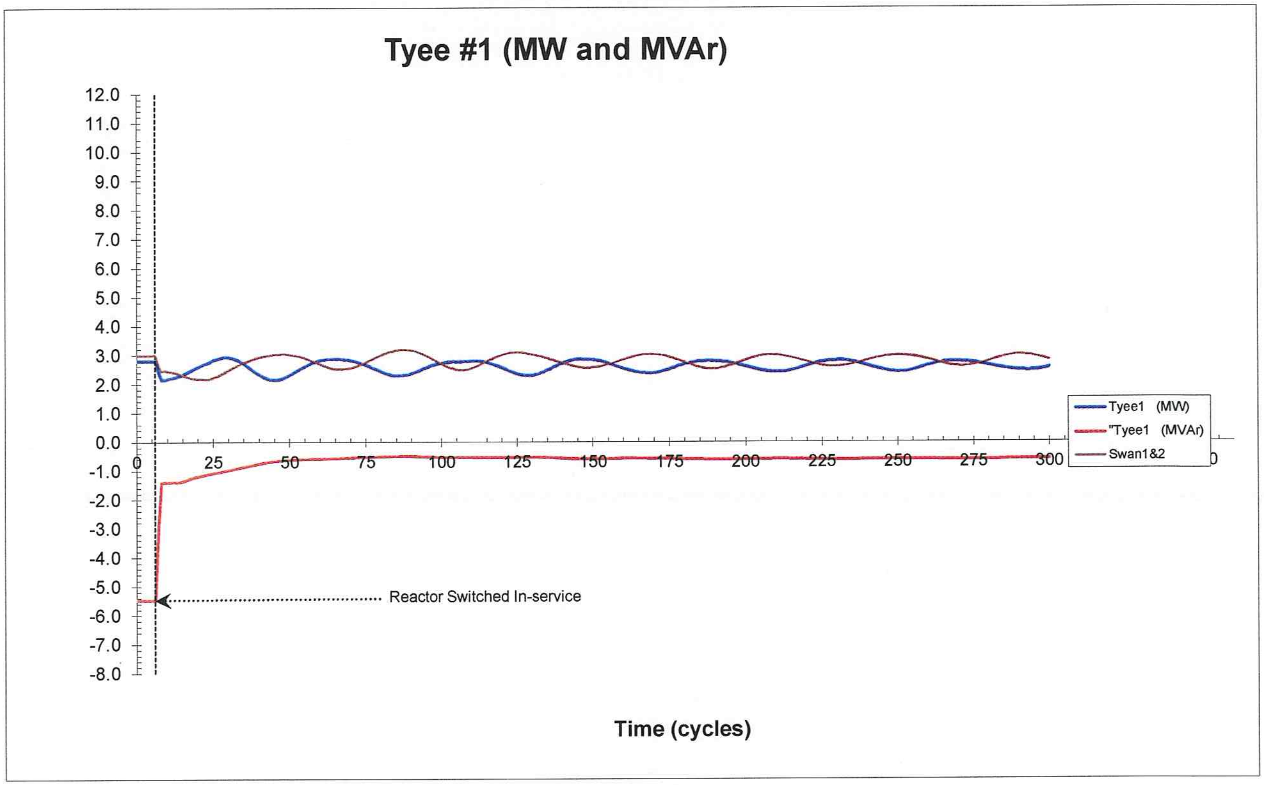
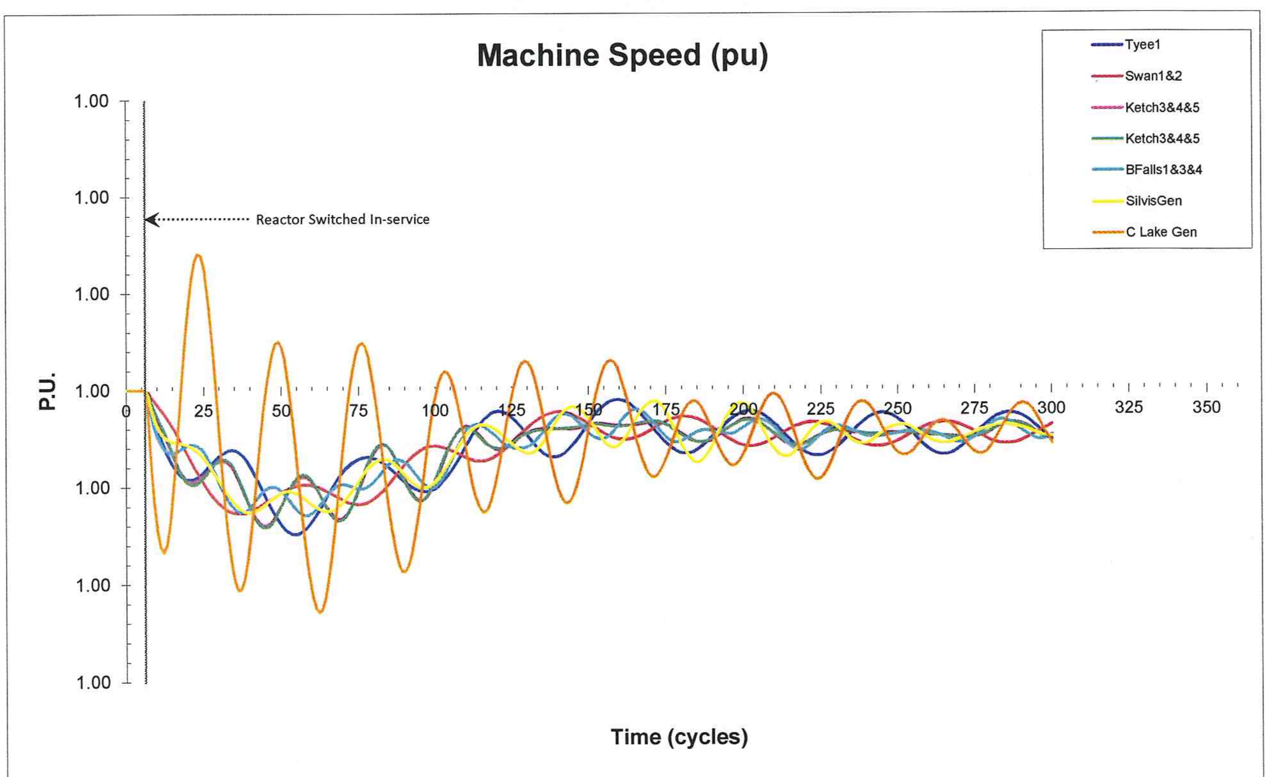


Figure D2.1b
Case 2d-1 Summer Minimum Monthly Peak
Wrangell Reactor Switched In-service



File Case2d1_WrReactorIn.re

Commonwealth Associates

Figure D2.1c
Case 2d-1 Summer Minimum Monthly Peak
Wrangell Reactor Switched In-service

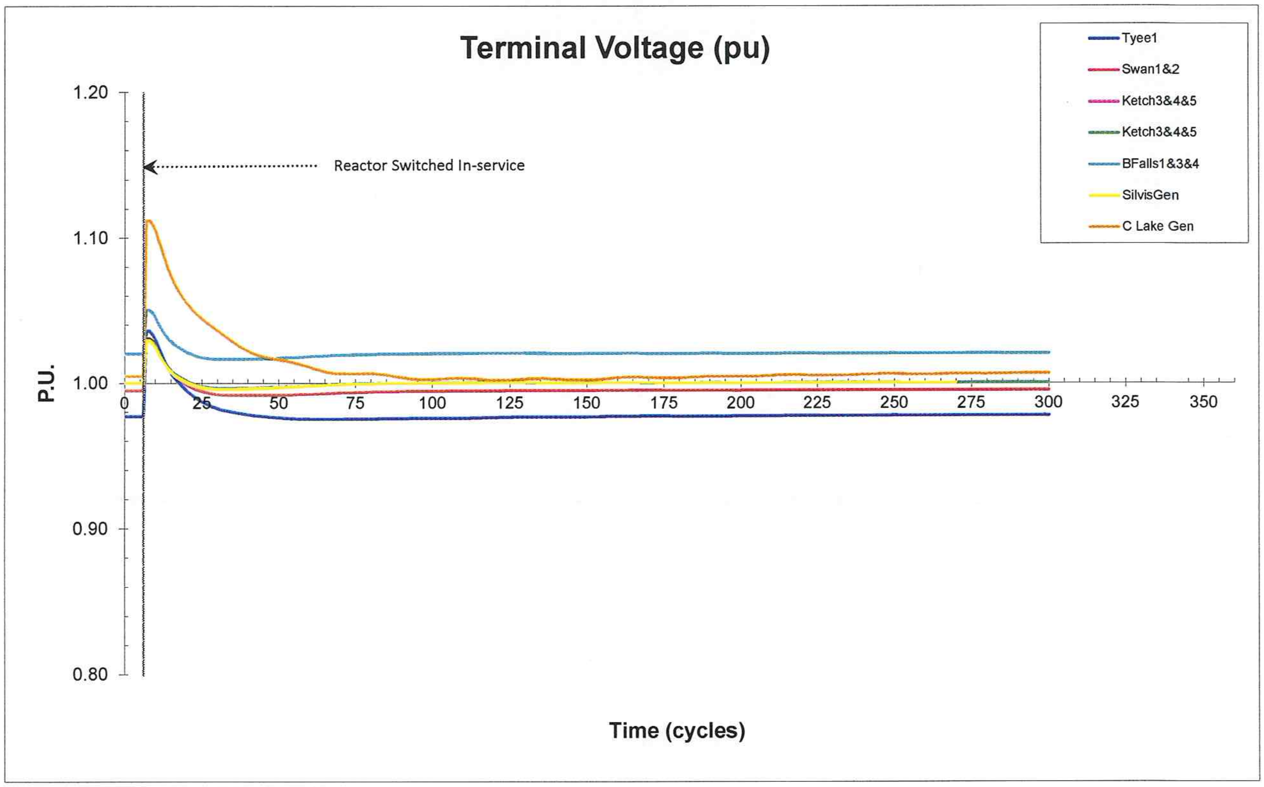
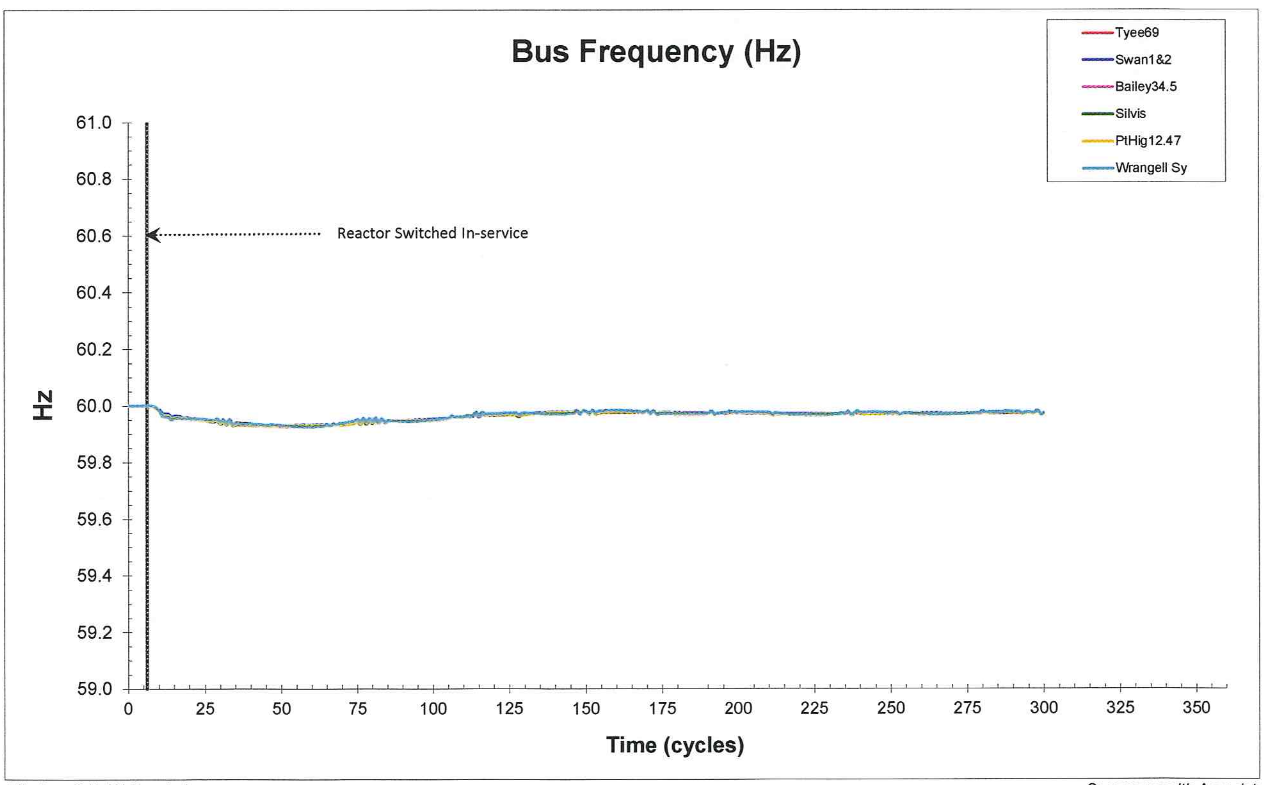


Figure D2.1d
Case 2d-1 Summer Minimum Monthly Peak
Wrangell Reactor Switched In-service



File Case2d1_WrReactorIn.re

Commonwealth Associates

Figure D2.1e
Case 2d-1 Summer Minimum Monthly Peak
Wrangell Reactor Switched In-service

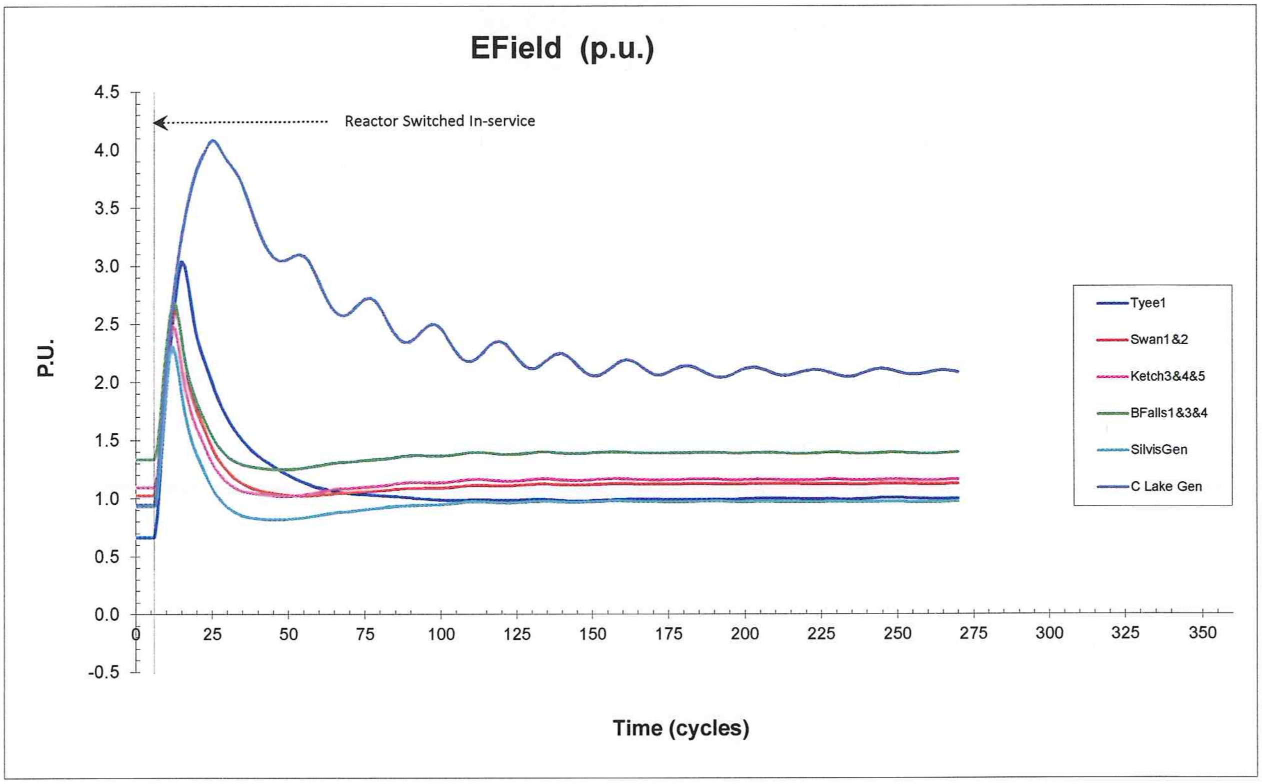
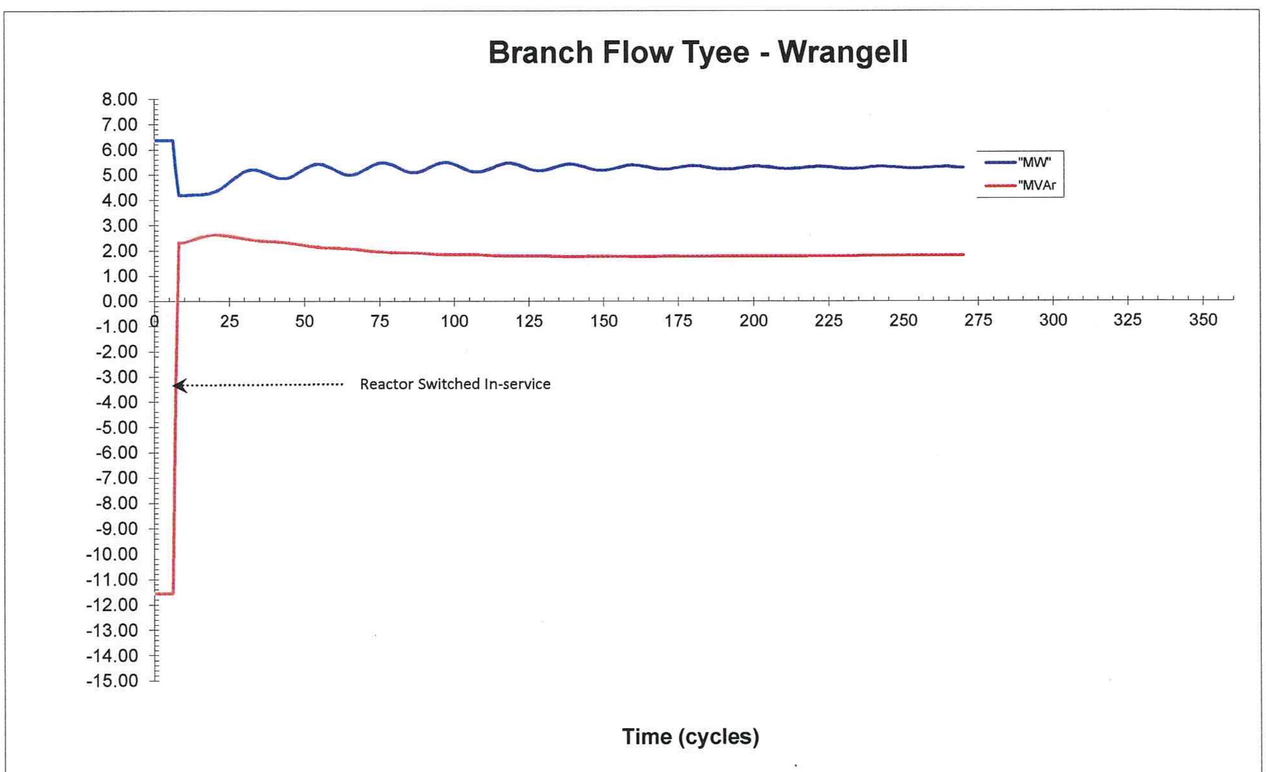


Figure D2.1f
Case 2d-1 Summer Minimum Monthly Peak
Wrangell Reactor Switched In-service



File Case2d1_WrReactorIn.re

Commonwealth Associates

Figure D3.0a
Case 3d-0 Summer Minimum
Wrangell Reactor Switched Out-of-service

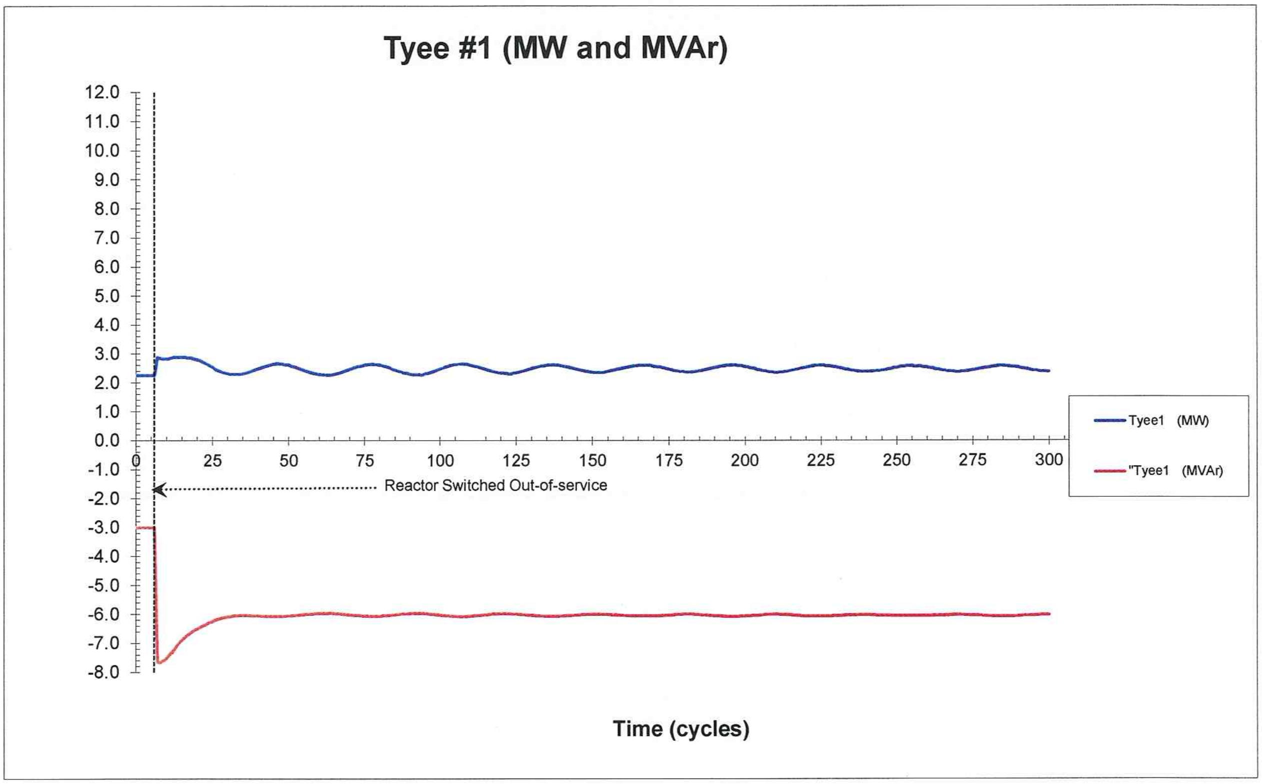
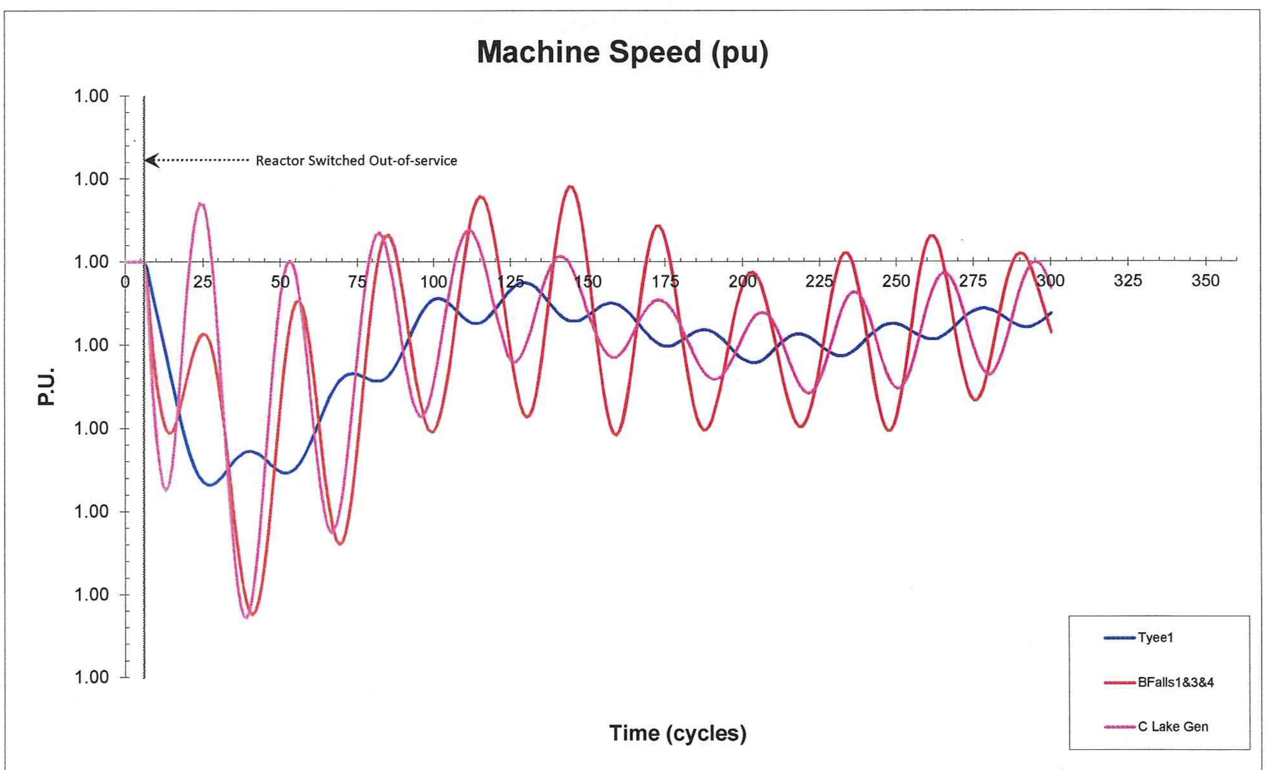


Figure D3.0b
Case 3d-0 Summer Minimum
Wrangell Reactor Switched Out-of-service



File Case3d0_WrReactorOut.re

Commonwealth Associates

Figure D3.0c
Case 3d-0 Summer Minimum
Wrangell Reactor Switched Out-of-service

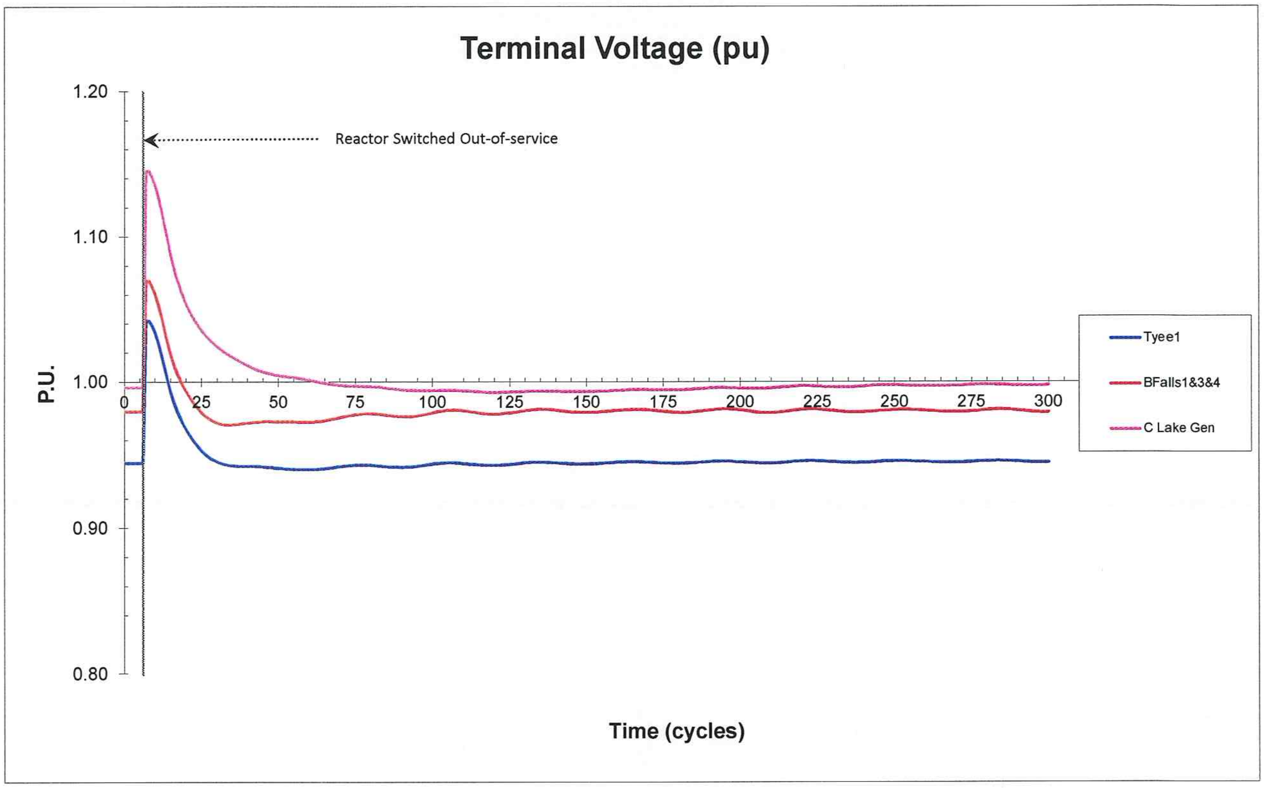
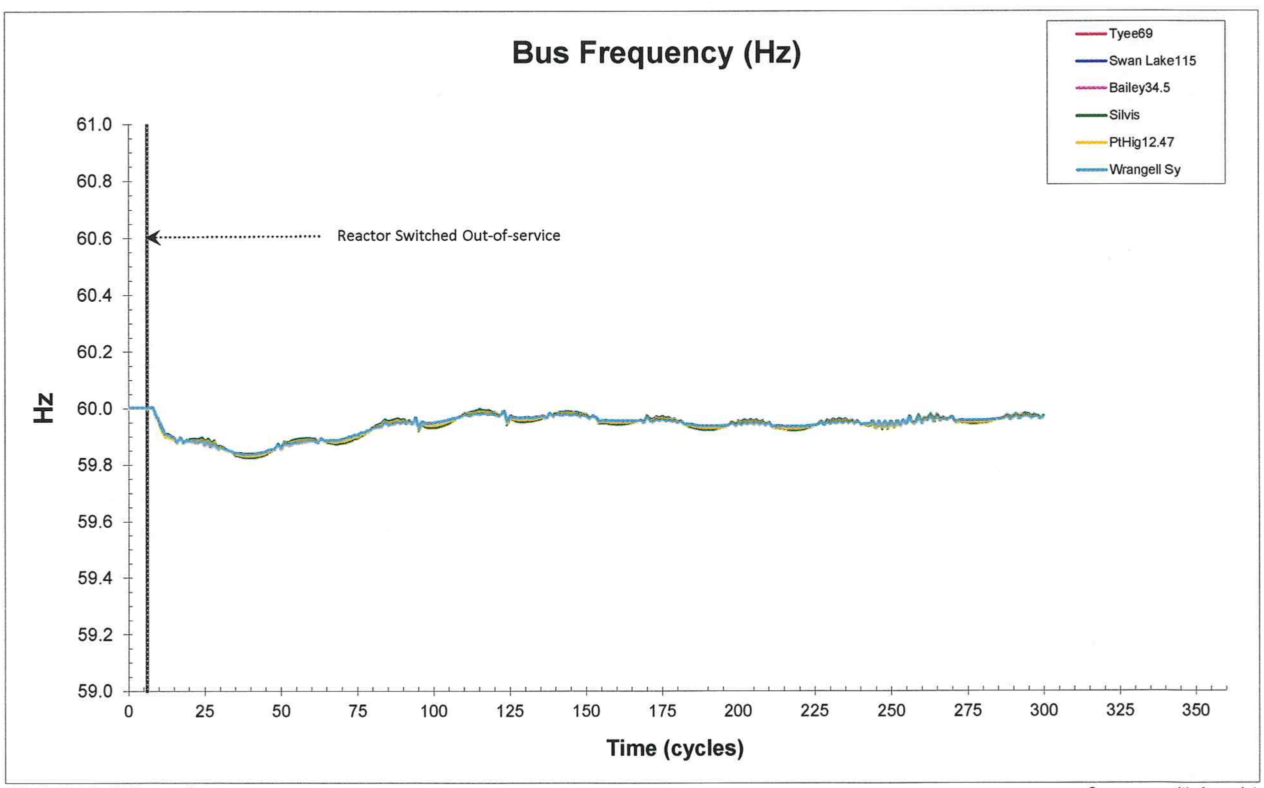


Figure D3.0d
Case 3d-0 Summer Minimum
Wrangell Reactor Switched Out-of-service



File Case3d0_WrReactorOut.re

Commonwealth Associates

Figure D3.0e
Case 3d-0 Summer Minimum
Wrangell Reactor Switched Out-of-service

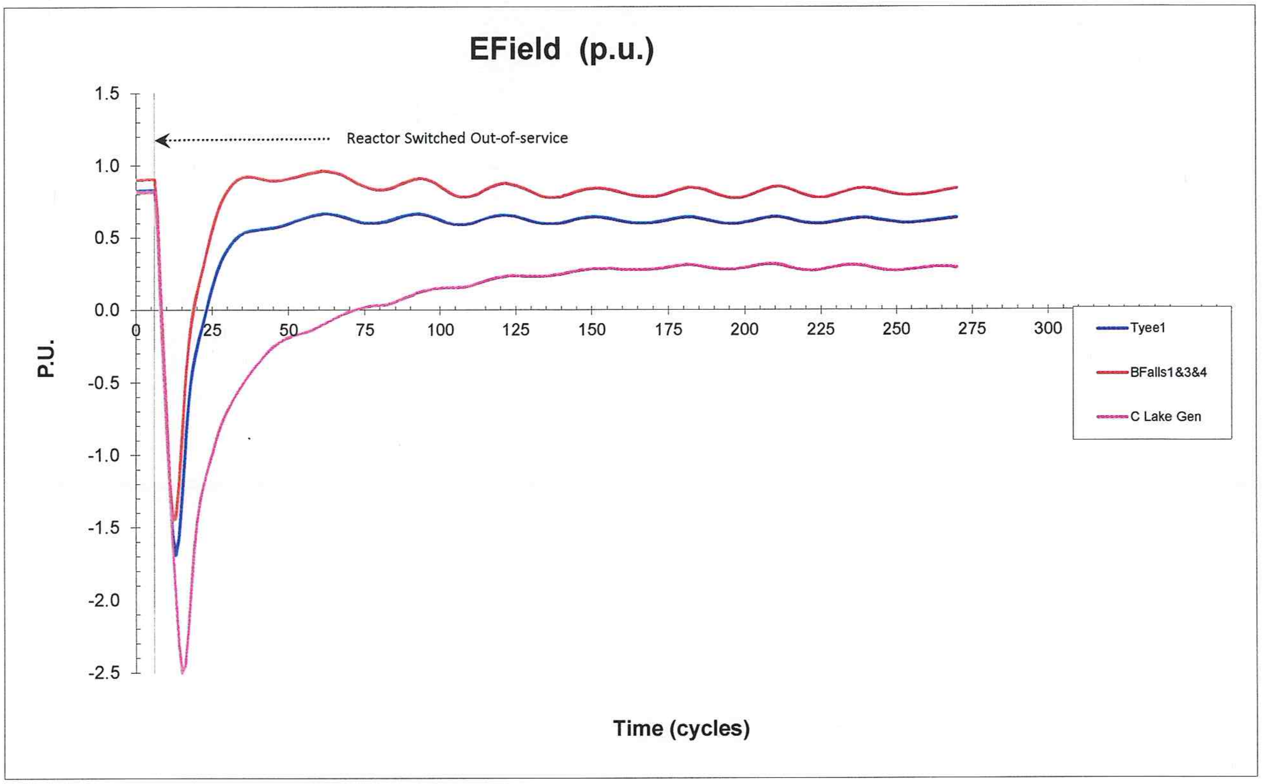
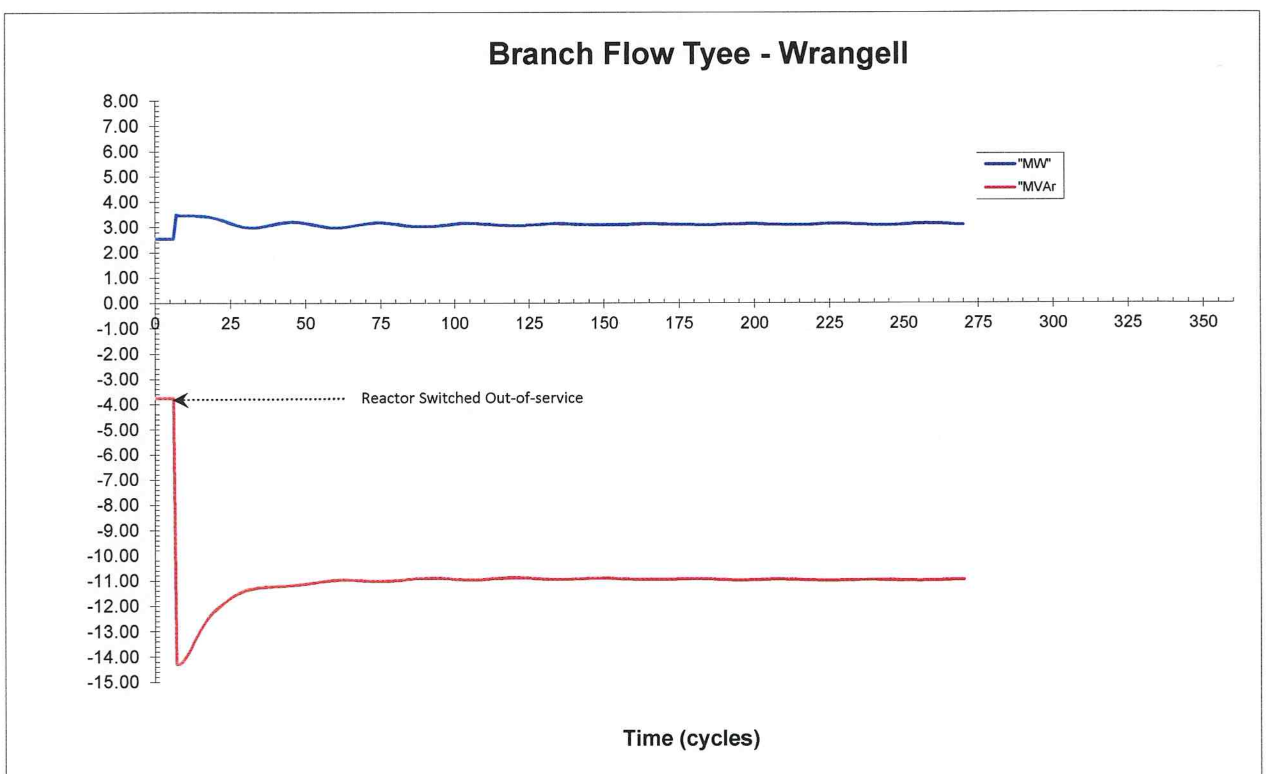


Figure D3.0f
Case 3d-0 Summer Minimum
Wrangell Reactor Switched Out-of-service



File Case3d0_WrReactorOut.re

Commonwealth Associates

Figure D3.1a
Case 3d-1 Summer Minimum
Wrangell Reactor Switched In-service

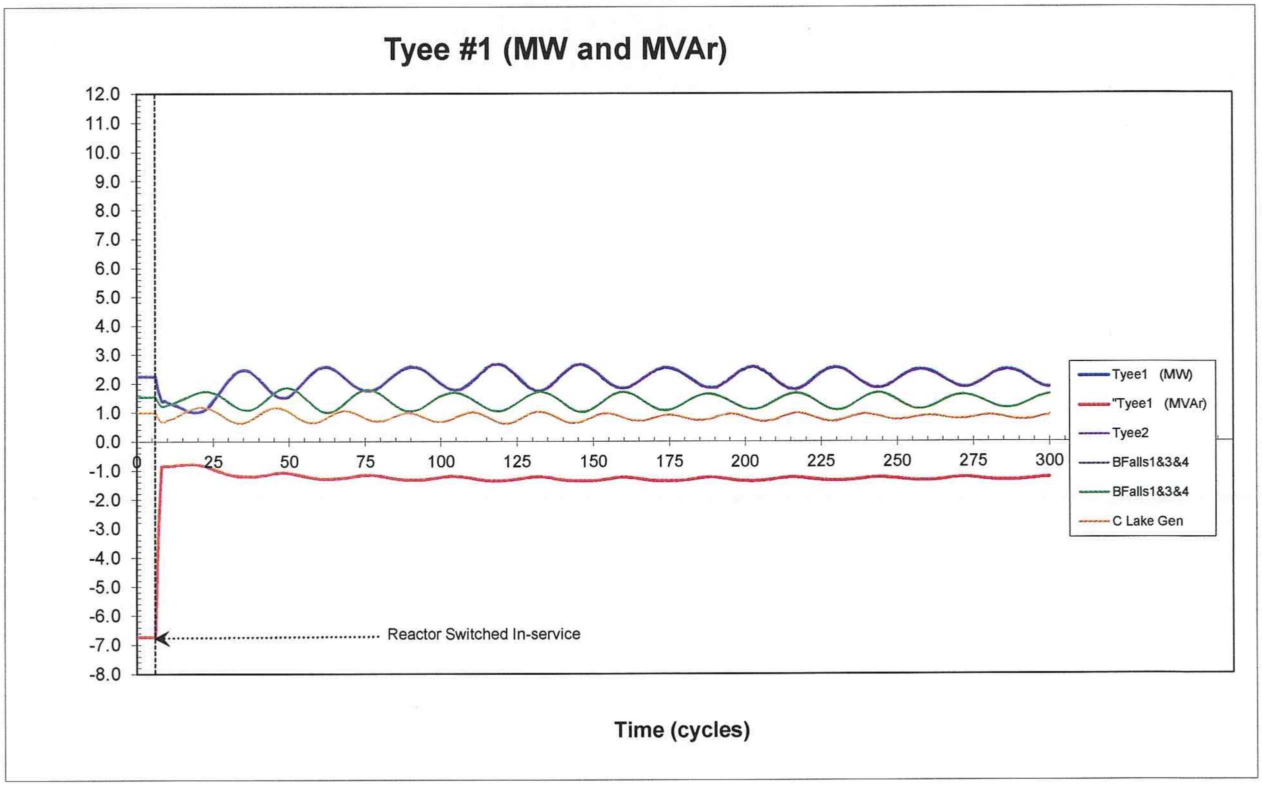
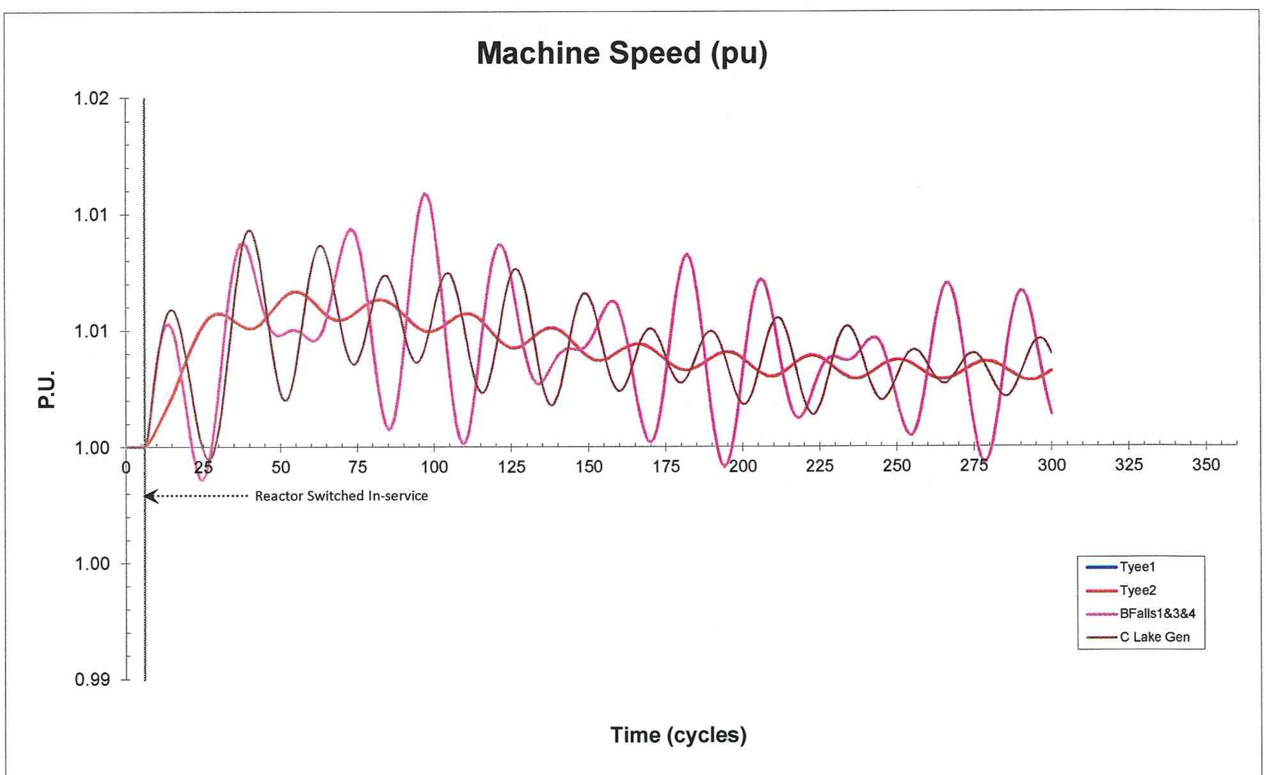


Figure D3.1b
Case 3d-1 Summer Minimum
Wrangell Reactor Switched In-service



File Case3d13_WrReactorIn.re

Commonwealth Associates

Figure D3.1c
Case 3d-1 Summer Minimum
Wrangell Reactor Switched In-service

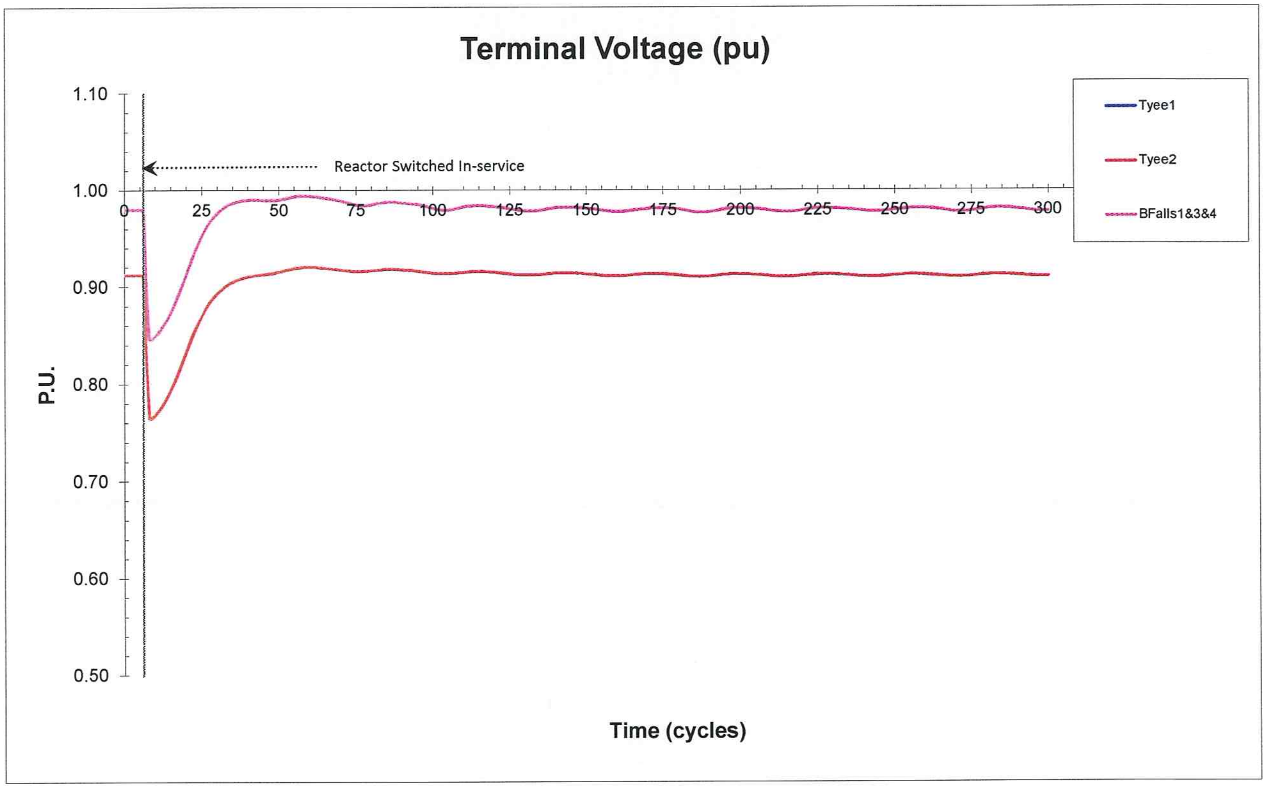
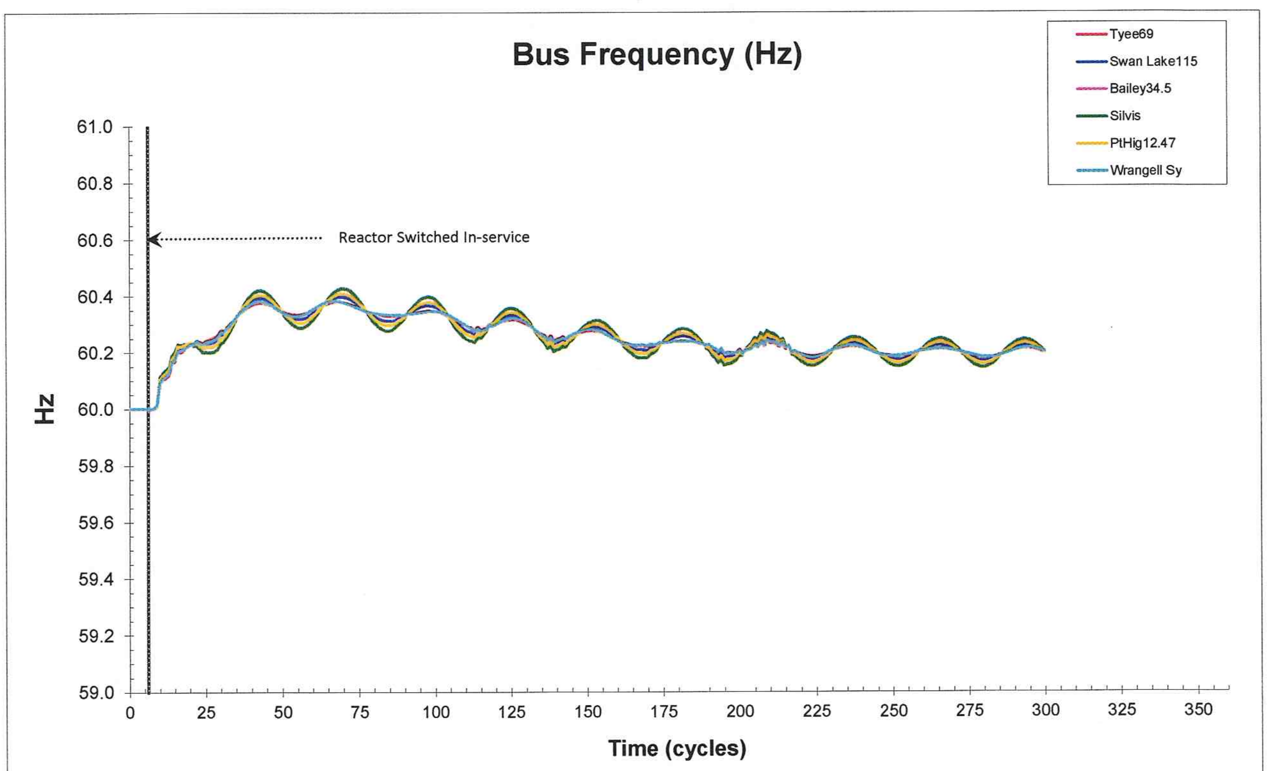


Figure D3.1d
Case 3d-1 Summer Minimum
Wrangell Reactor Switched In-service



File Case3d13_WrReactorIn.re

Commonwealth Associates

Figure D3.1e
Case 3d-1 Summer Minimum
Wrangell Reactor Switched In-service

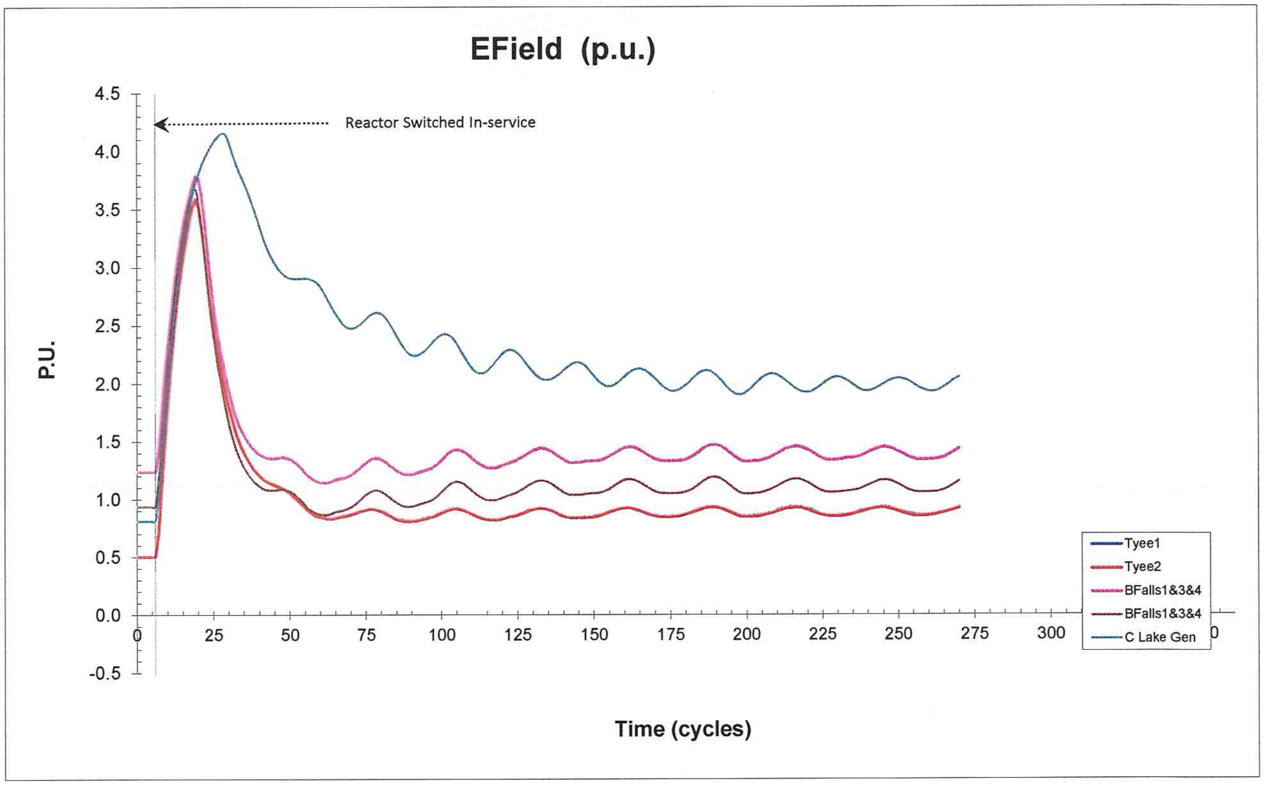
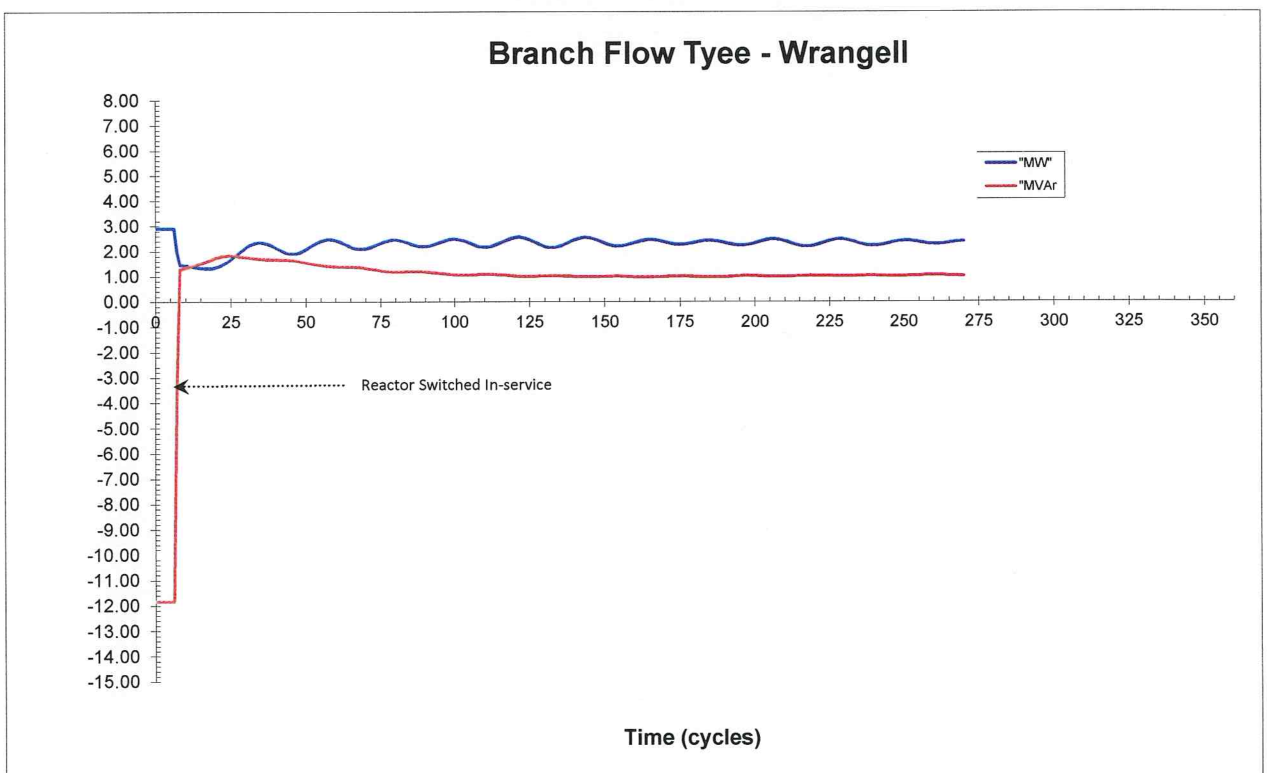


Figure D3.1f
Case 3d-1 Summer Minimum
Wrangell Reactor Switched In-service



File Case3d13_WrReactorIn.re

Figure E1a
Case 3e-1 Summer Minimum
Energize Tyee - Wrangell

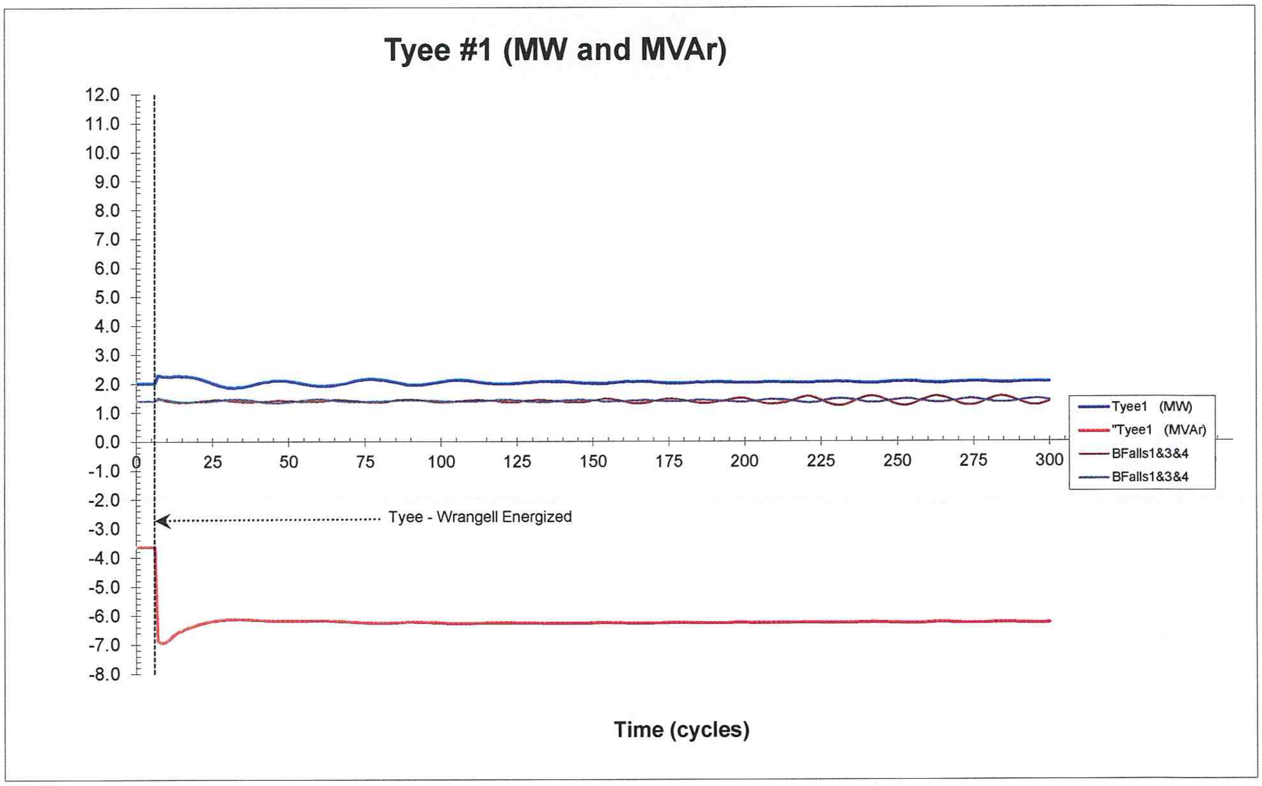
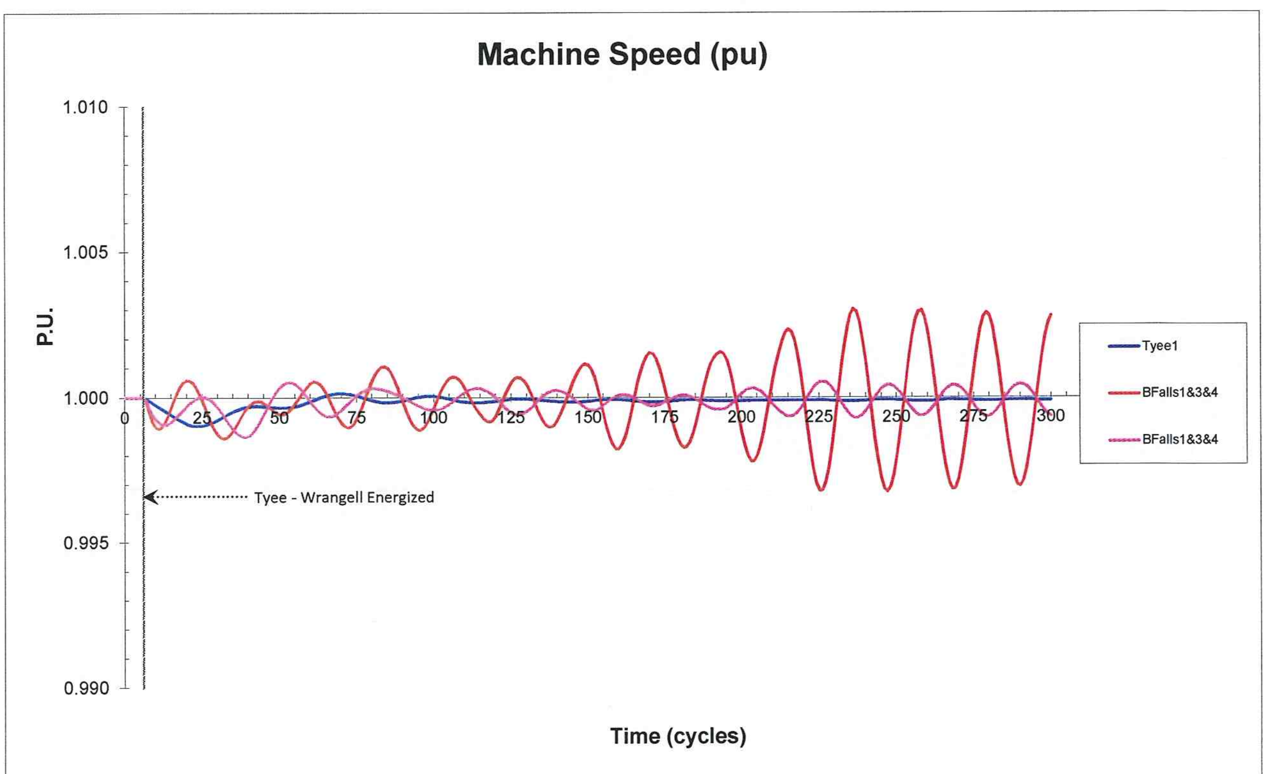


Figure E1b
Case 3e-1 Summer Minimum
Energize Tyee - Wrangell



File EnergizeTyee_Wr4.re

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Figure E1c
Case 3e-1 Summer Minimum
Energize Tyee - Wrangell

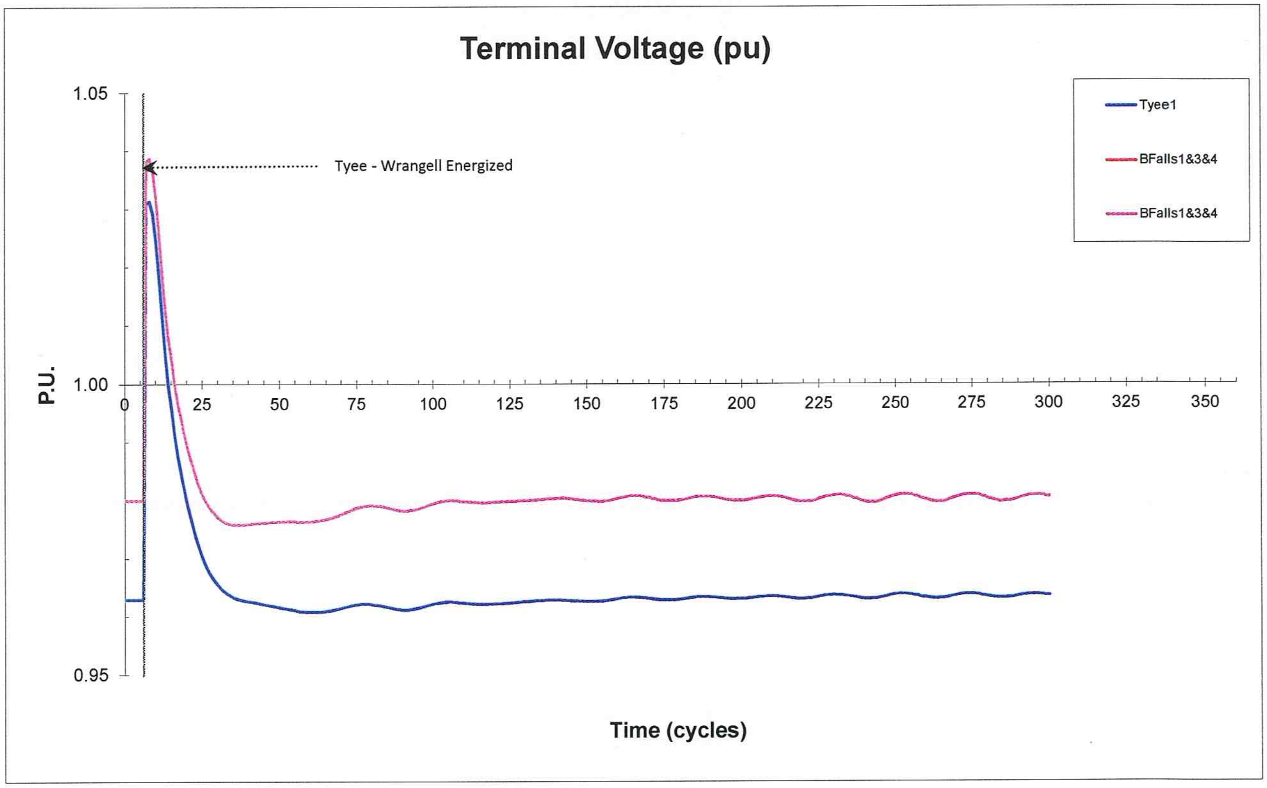
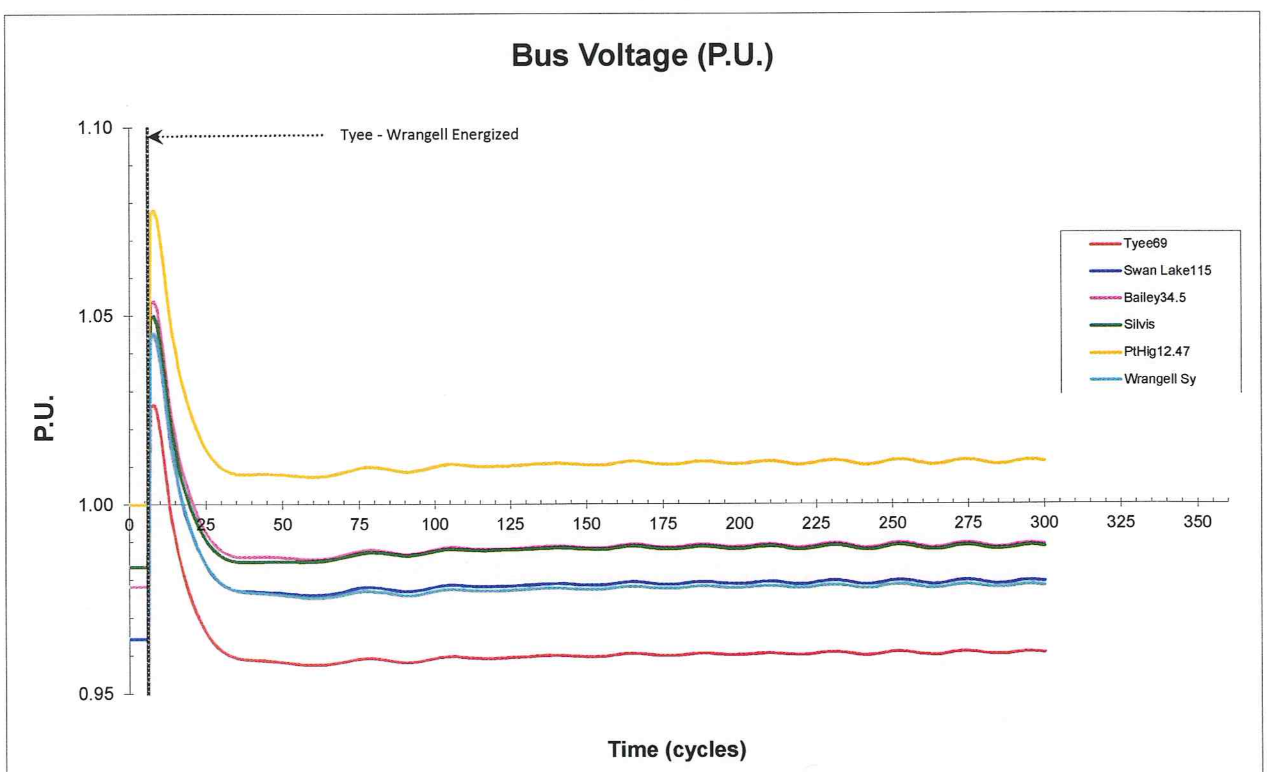


Figure E1d
Case 3e-1 Summer Minimum
Energize Tyee - Wrangell



File EnergizeTyee_Wr4.re

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Figure E1e
Case 3e-1 Summer Minimum
Energize Tyee - Wrangell

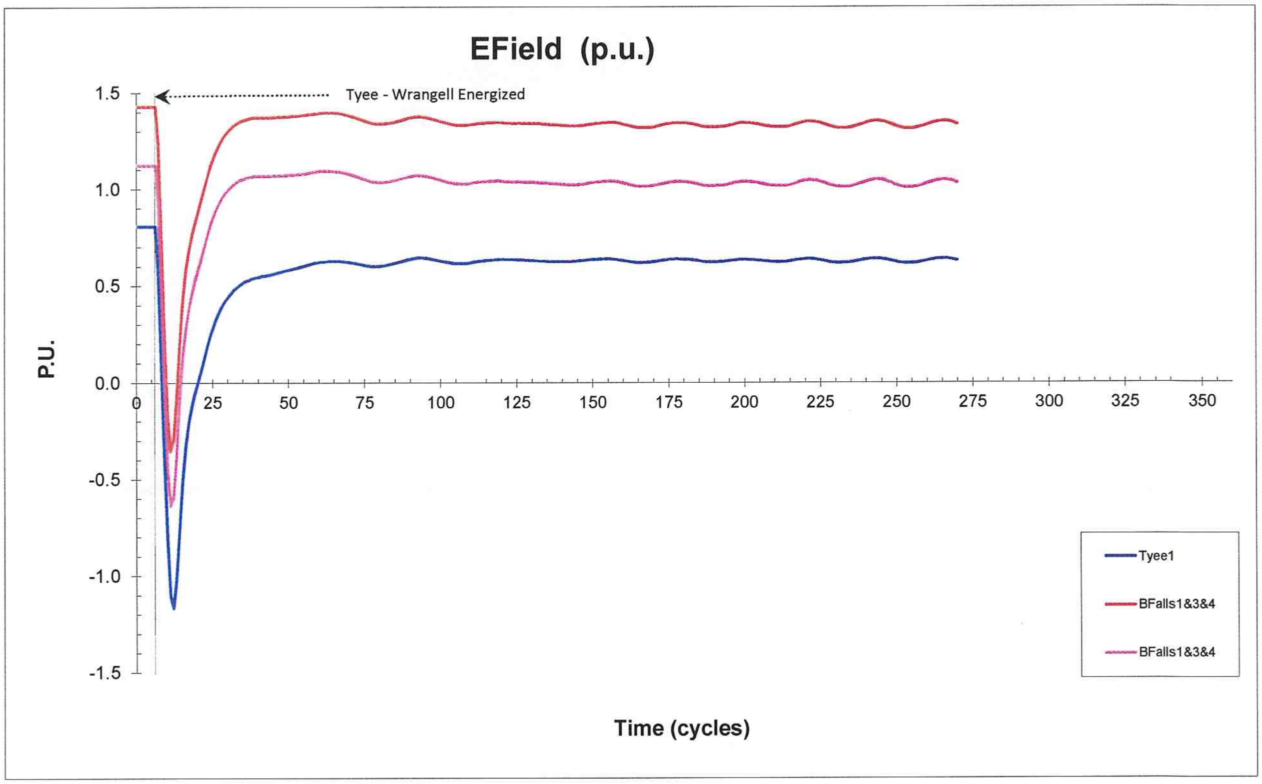
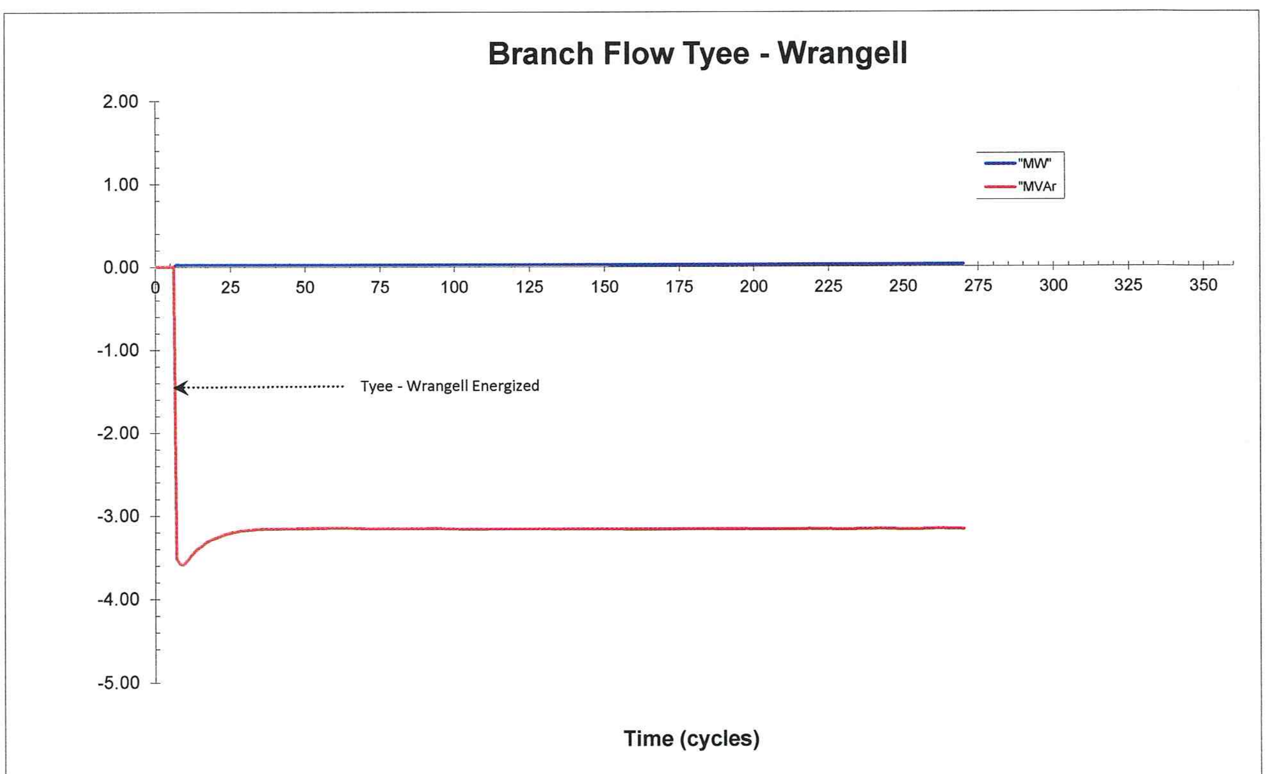


Figure E1f
Case 3e-1 Summer Minimum
Energize Tyee - Wrangell



File EnergizeTyee_Wr4.re

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Figure E2.4a
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg

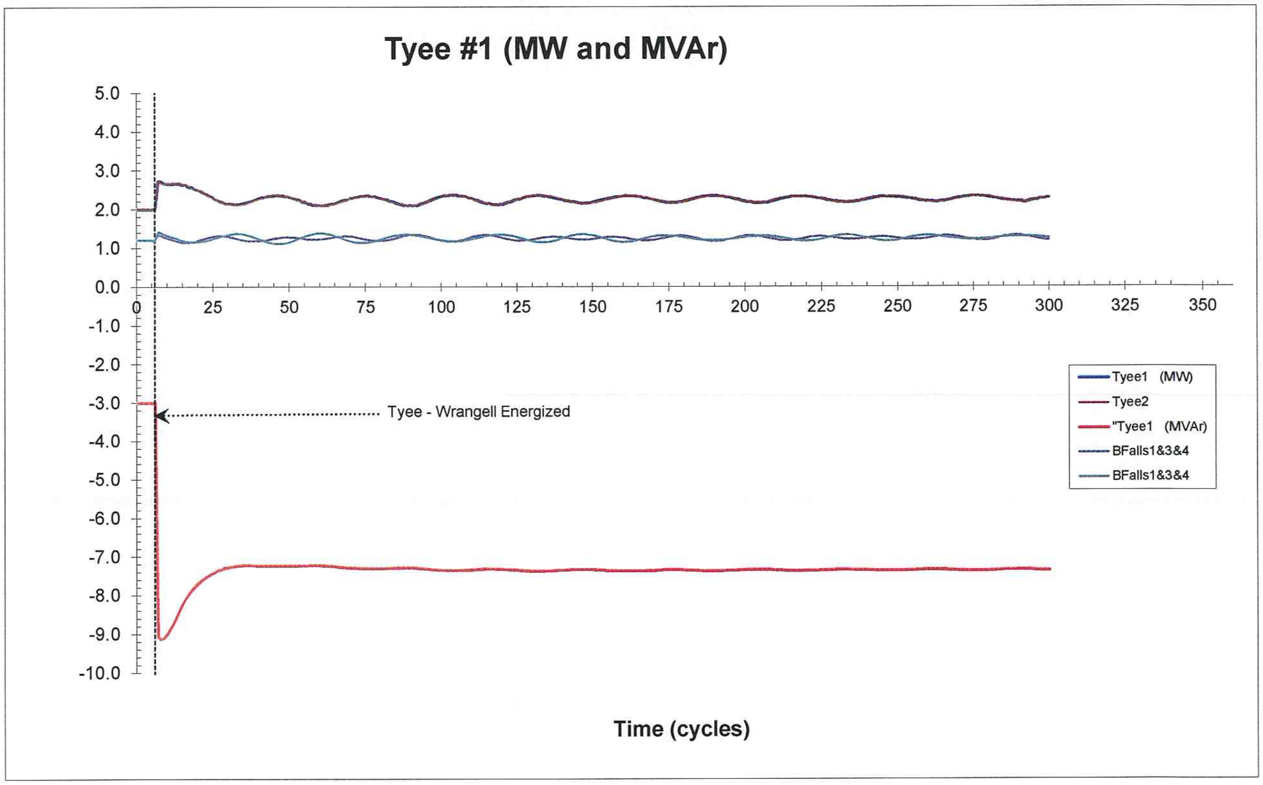
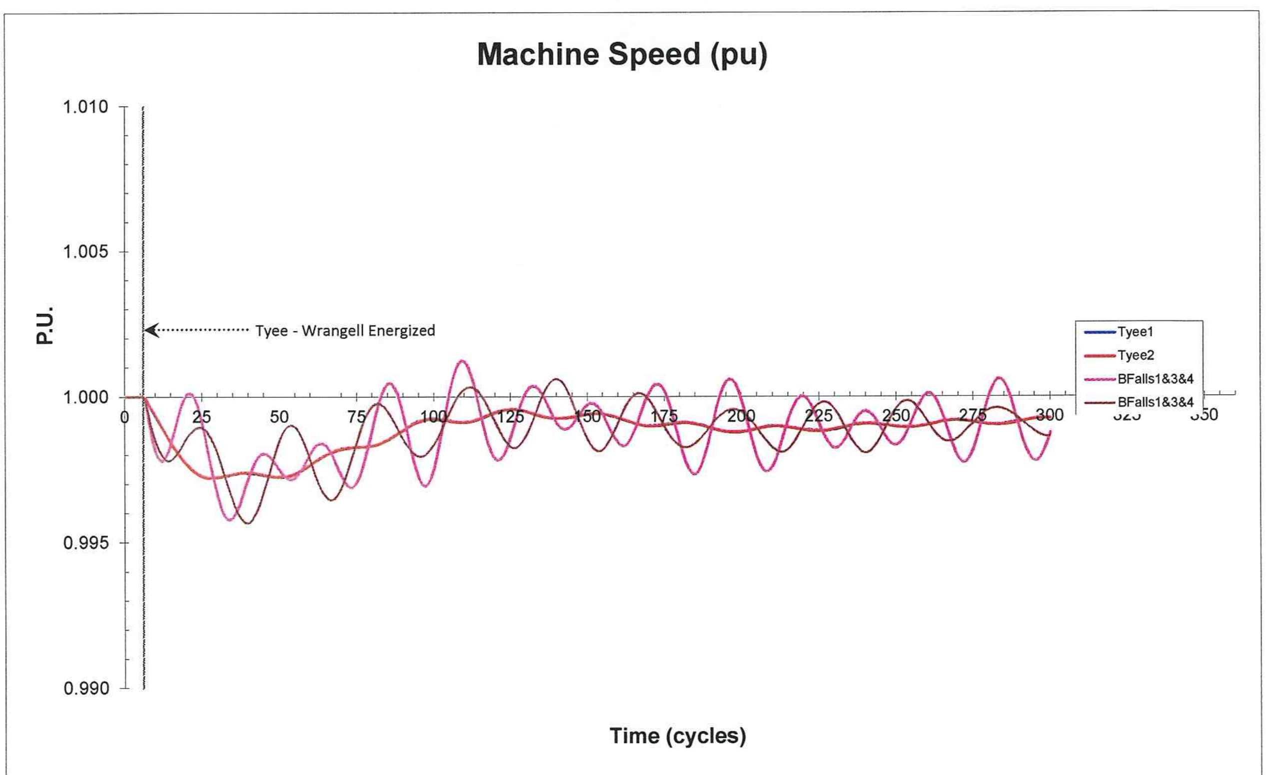


Figure E2.4b
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg



File EnergizeWr_P4.re

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Figure E2.4c
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg

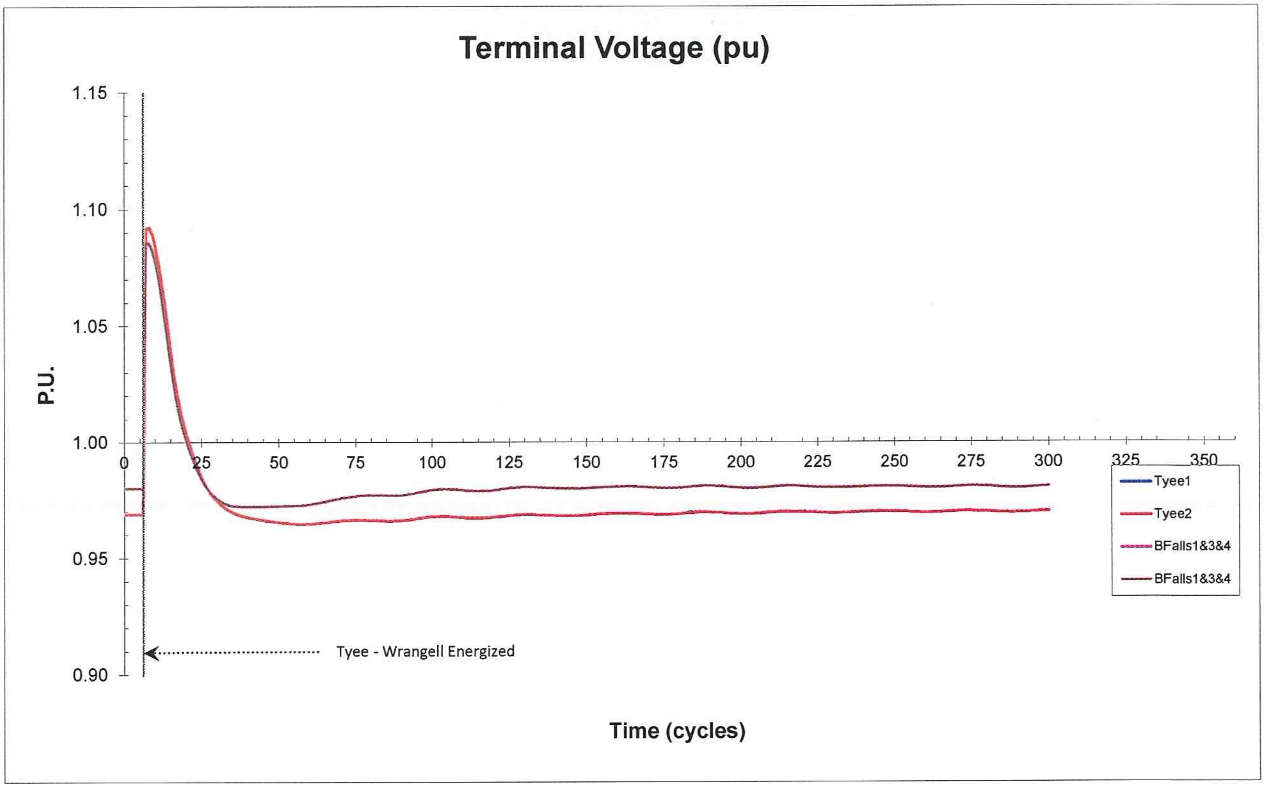


Figure E2.4d
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg

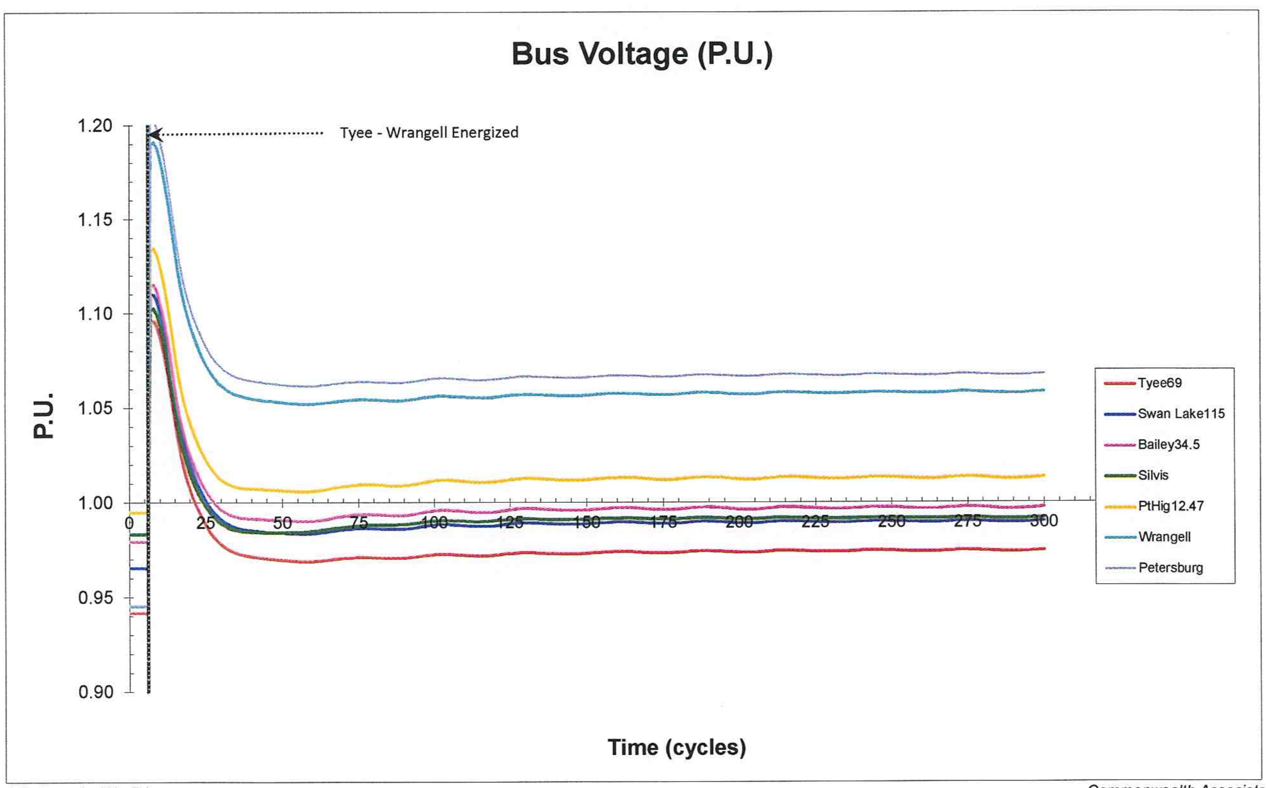


Figure E2.4e
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg

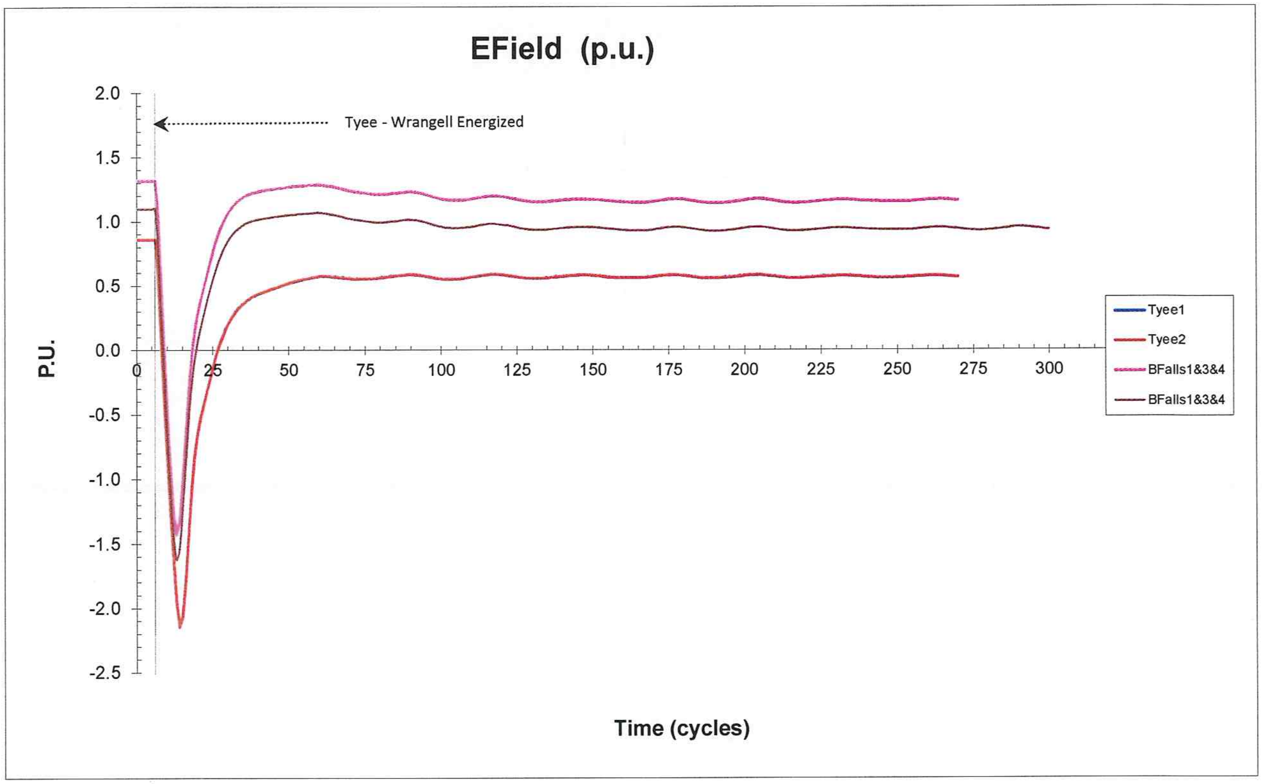
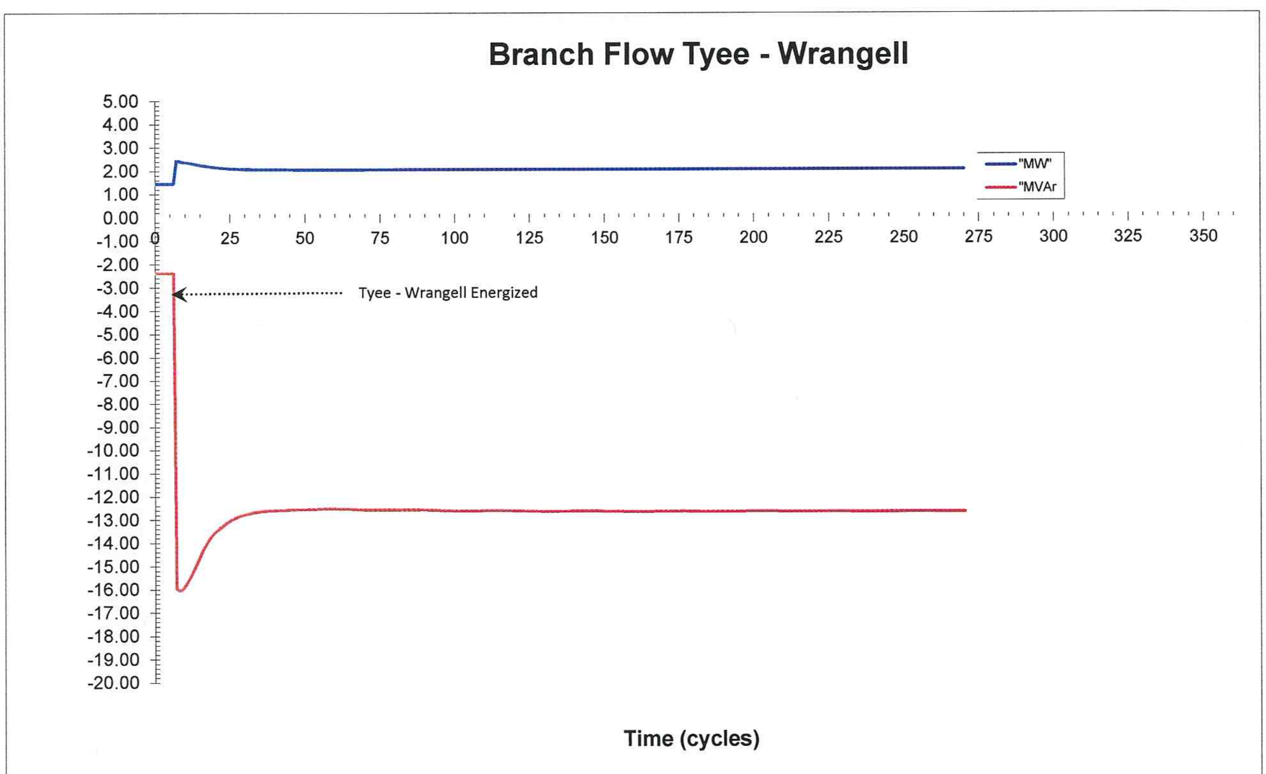


Figure E2.4f
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg



File EnergizeWr_P4.re

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Figure E2.8a
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg (Tyee69V 98%)

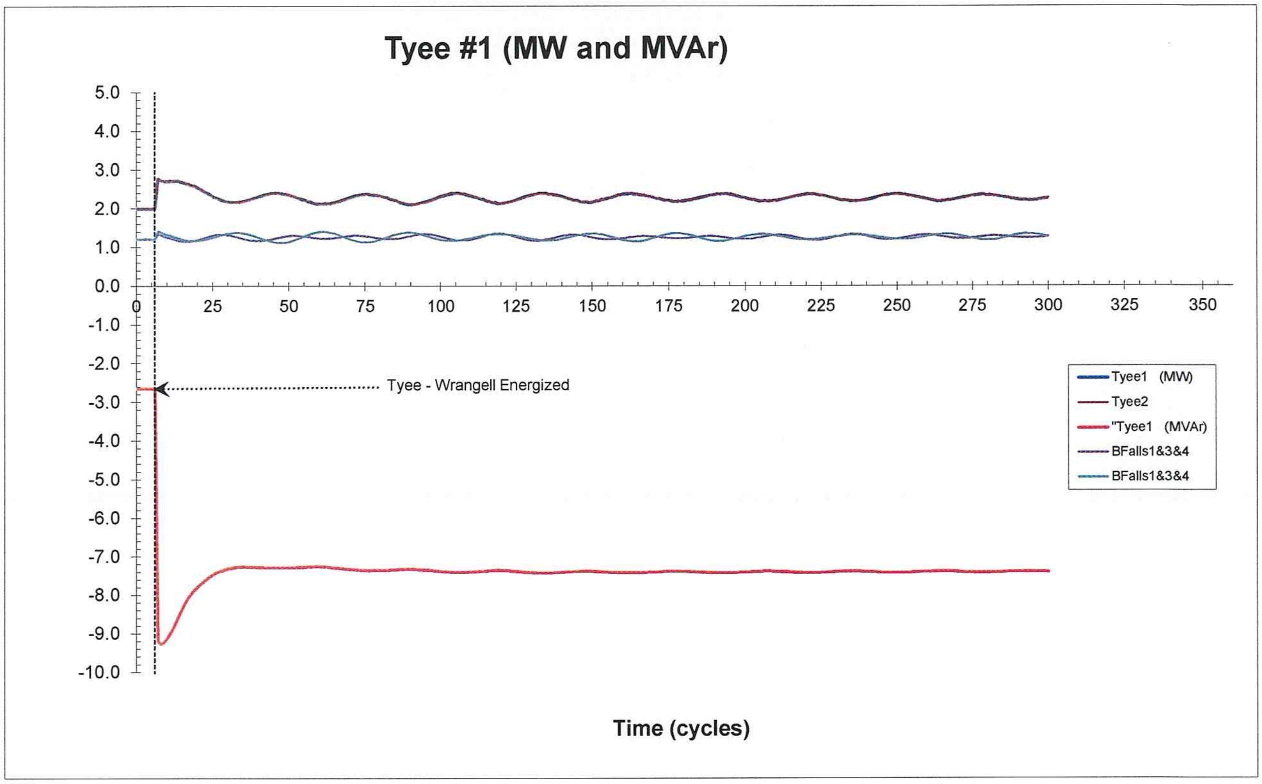
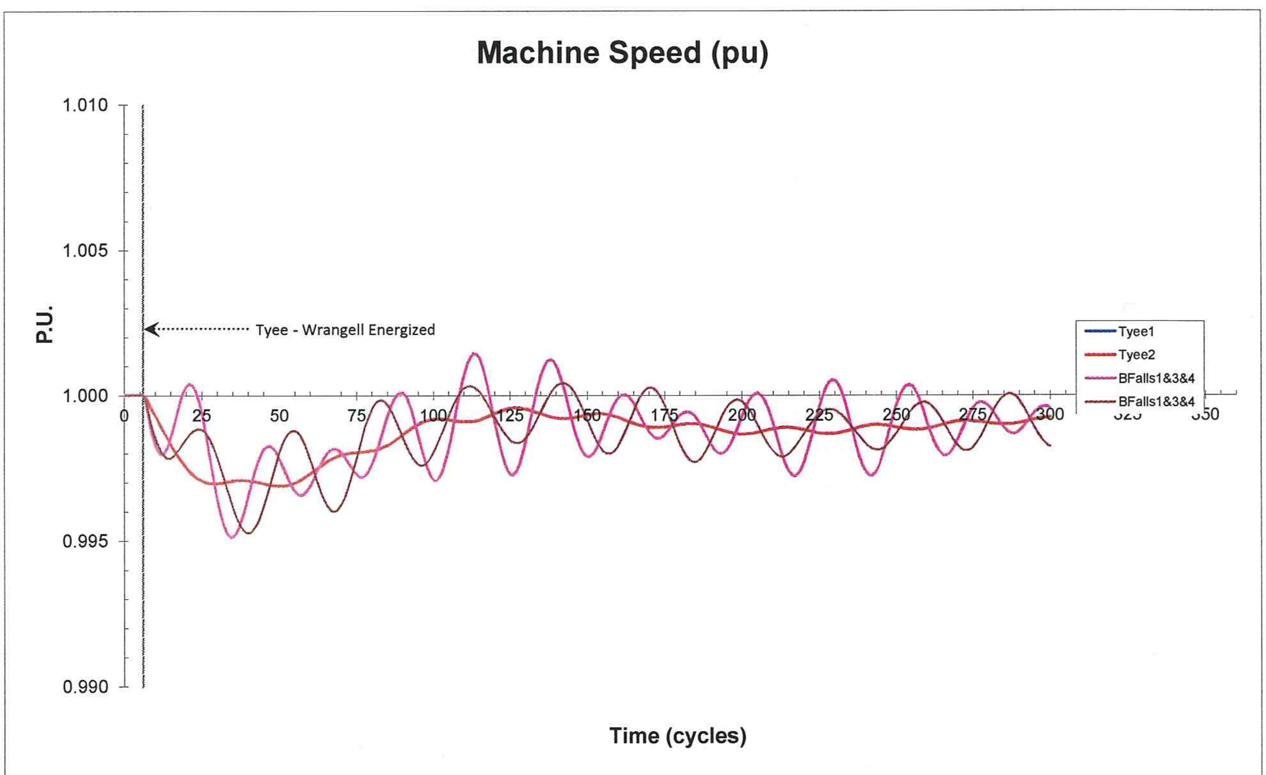


Figure E2.8b
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg (Tyee69V 98%)



File EnergizeWr_P8.re

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Figure E2.8c
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg (Tyee69V 98%)

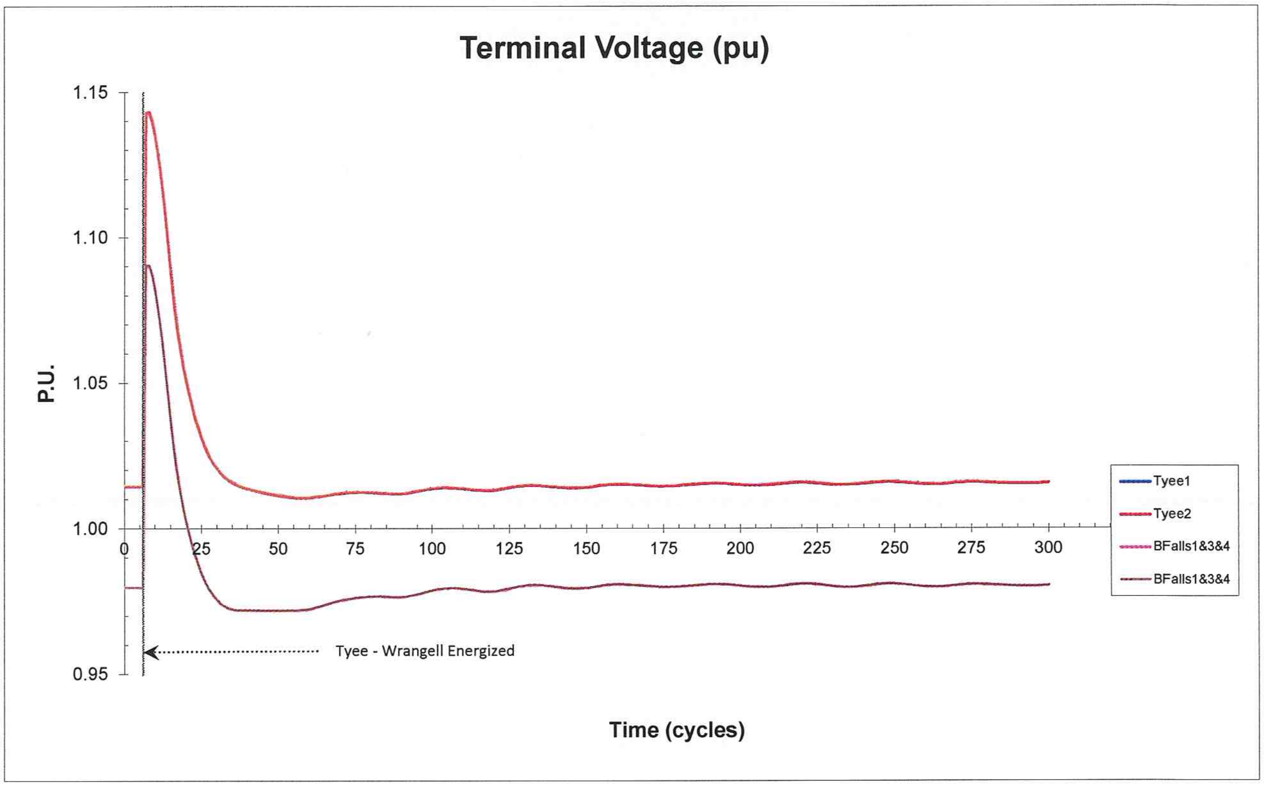
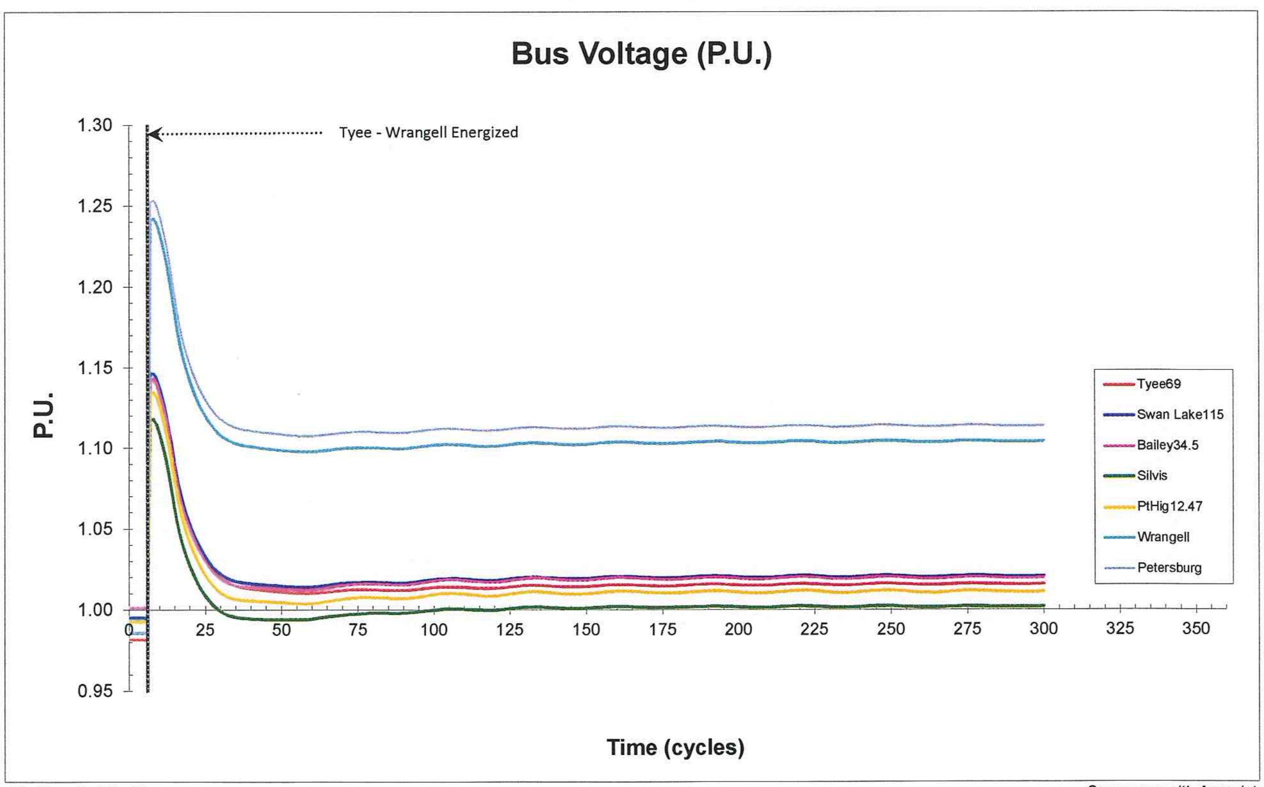


Figure E2.8d
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg (Tyee69V 98%)



File EnergizeWr_P8.re

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Figure E2.8e
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg (Tyee69V 98%)

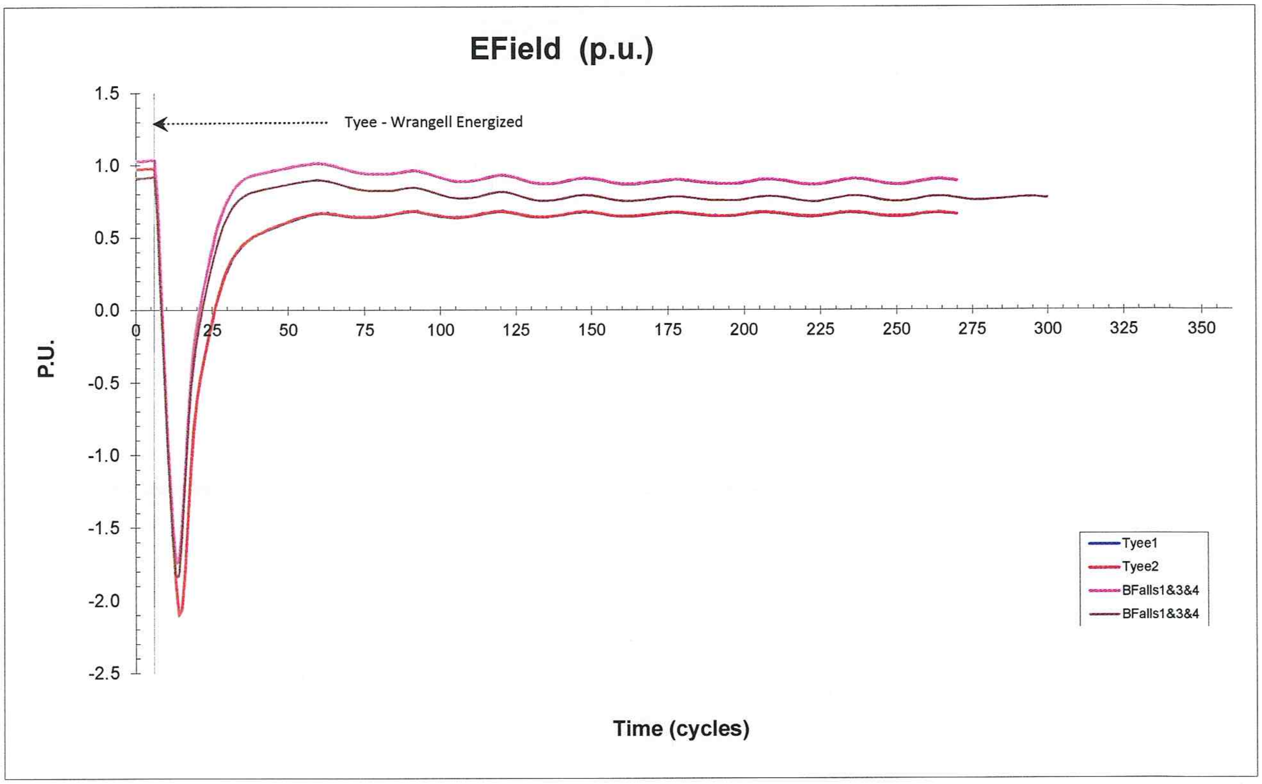
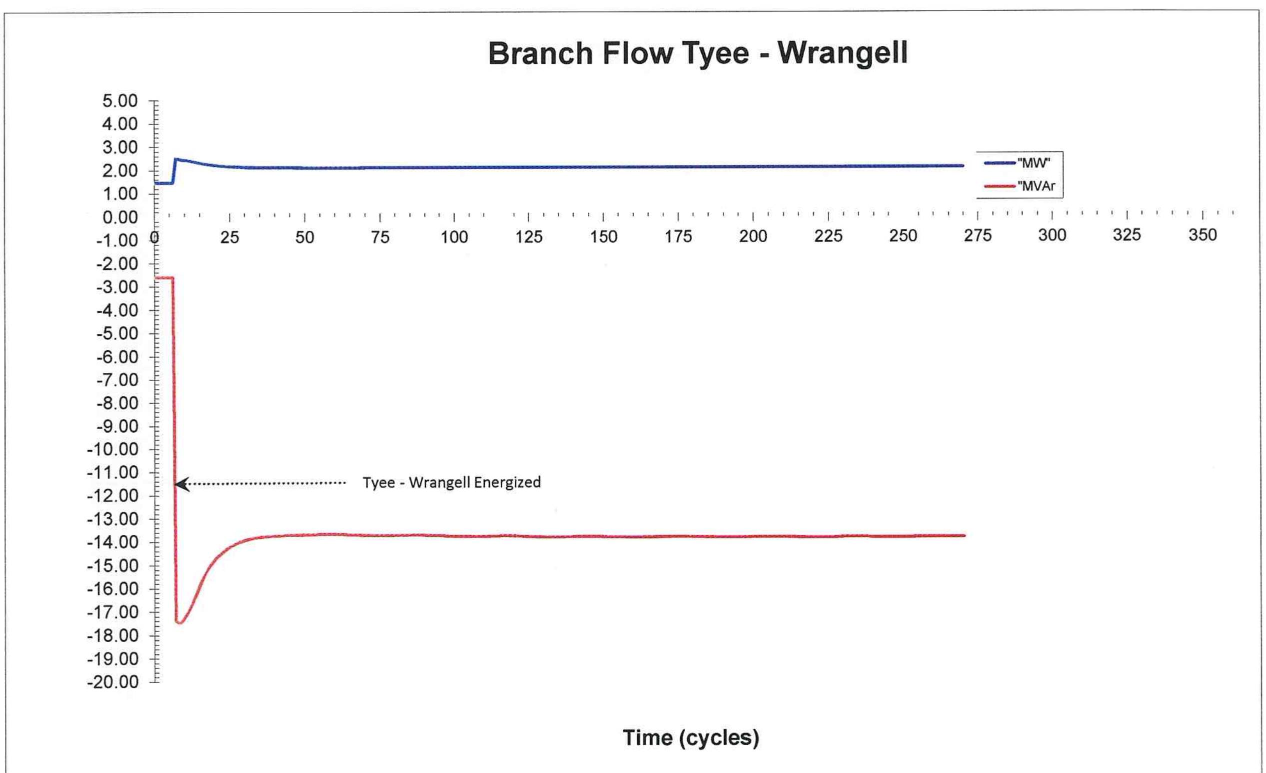


Figure E2.8f
Case 3e-2 Summer Minimum
Energize Wrangell - Petersburg (Tyee69V 98%)



File EnergizeWr_P8.re

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SOUTHEAST ALASKA POWER AGENCY
Director of Special Projects Report

SCADA Capital Project Update

Since many of you have been on the SEAPA Board for more than a few months, we're sure you are as ready as we are to push this two-year project out of the hanger. We are happy to report our Request for Proposals (RFP) generated interest from 24 companies, seven of which answered the RFP in sufficient detail to be considered a candidate.

(1) Harris Group Inc.
(2) HSQ Technology
(3) Automated Control Systems, Inc.
(4) Fiber Fusion Inc.
(5) Samuel Engineering
(6) HPI, LLC
(7) Barry-Wehmiller Design Group, Inc.

We estimated the total cost of the RFP to be near $800,000. We received proposals ranging in price from $830,000 to $2.1 million. Some of the price discrepancy comes from not having previously performed work as we specified; some is from excess profit; some of the discrepancy comes from high prices for our strict warranty requirements. We are in the process of reviewing the proposals; taking a look at the items that were very expensive, and then selecting the top two proposals for close evaluation (by conducting phone interviews and possibly site visits). Award date for this contract is May 3, 2013. Very little has changed with respect to cash flow; but effort wise, Sharon and James Volk sweat a bucket.

	FY12	FY13	FY14	Project Total
Projected	$120,000	$300,000	533,000	$1,053,000
Actual to Date	$106,700	$134,260	-	$240,960

The FY13 budget number has been reduced by $500,000 and FY14 Budget has been increased $500,000 to reflect our delay in issuing the RFP. Quite a bit of proof of concept engineering work is contained within the scope of the recently issued SCADA RFP. This work and our installation of the LAN delayed the project. We did this up-front work to streamline the SCADA contract, which in the long run, will reduce installation and maintenance costs.

Tyee Lake Stream Gage Installation

Tyee Outlet, Lake Level 1400 ft, August 2012.

The terms and conditions of our FERC License (No. 3015) state that we must measure stage and flow on the streams upon which the project is located. The present outfall discharge (spill) measuring methods once considered poor by USGS standards; have deteriorated due to the continued pile-up of logs at the outlet. Additionally, we need an accurate spill measurement for the Whitman true-up. Long term, the stream gage will allow us to better assess the basin as we evaluate expanding the Tyee project during the relicensing process. And finally, there is a small increase in storage even though we do not change the historic operating range of the lake (reservoir). This storage increase allows us to pay for this project in six years if the total cost is kept under $1.5 million and rates stay at $68/MWh.

We have secured all the necessary permits and approvals except for a letter of agreement regarding historical artifacts that may be found at the outlet. We are currently in the process of a review/dialog with the State Historical Preservation Office regarding the civil construction phase with respect to artifacts. This dialog did not delay issuance of the log removal RFP (April 17) or the log removal contract scheduled for completion by the end of July. We plan to complete final civil works design during May and June and issue the civil works RFP in June. All construction should be complete by mid-September. A summary of the license and permit work, managed by McMillen LLC (Finlay Anderson) is listed below.

Agency			Permit	Reason
Corps of Engineers				
	404	Wetlands	N	Design kept removal and placement of new material in the channel to less than 25 yds.
	401	Water Quality	N	All construction work to be done in the dry, have spill prevention plan ready.
	Sect. 10	Nav Stream	N	Only bears and goats can navigate here.
Corps of Engineers Summary				Qualify for a Nation-Wide permit, no correspondence from COE to FERC required
USF&W				
	Endangered		N	As long as SEAPA staff conducts a nesting survey prior to construction (May and June)
	or Threated Species			and no hunting by workers
ADF&G				
	Habitat		N	This group monitors Tyee tailrace mitigation and would prefer to keep plant flows
				high, this matches our construction plan
				Habitat is concerned with anadromous species and game species of value, they have
				previously shown negative interest in lake grayling that reportedly are diseased.
				Construction in dry channel will not impact Hidden Creek which has only a very short
				stretch of anadromous habitat
Alaska Department of Natural Resources				
		Water Right	N	We won't change how much water we use, only measure what we don't use more effectively.
		Lease	N	For a day DNR was thinking of a survey, this would have been another $200k! Luckily they
				found the lease and quit referencing a site plan.
		Disposal	N	If no logs are sold, and since the logs were already stored on the property, we won't need to
				cruise or timber sale permit. A very limited number of live trees can be damaged or cut.
		SHPO	?/Y	The Alaska State Historical Preservation Office operates under the DNR. Under the quirky
				SHPO rules SEAPA staff or our consultants may not talk directly with SHPO. But a designated
				historical consultant can and we have one of those as a subcontractor under Tetra Tech. We
				expect to have to agree to stop construction if we find anything, this action dates back to a
				construction report (pre construction study) that said there may be artifacts at the outlet.
FERC				
	Dam Safety		Y	The Portland Dam Safety office joined the conference call mostly out of curiosity as they had
				heard of the project. Compliance out of DC was mostly interested in land owner issues, and
				endangered or threatened species, we had provided all our correspondence
				(letters indicating no permits required) prior to the call.
				WE are to submit our plans and specs to the Portland office prior to civil construction for
				approval, this does not apply to the log removal contract.

Tyee Outlet Weir-Log Removal and Civil Works Schedule

Request for Log Removal Bids Issued	April 17, 2013
Site Visit Window (optional)	May 7 to May 9, 2013
Bids Submitted to SEAPA	May 17, 2013 at 3 pm AKDT
Notice of Award	May 22, 2013
Log Contract Conformance	May 22 to May 30, 2013
Design Civil Works	May 15 to June 15
Notice to Proceed	June 3, 2013
Issue Civil Works RFP	June 19, 2013
Civil Works Contract Conformance	July 15 to July 19
Log Removal Contract Complete	July 22, 2013
Civil Works Contract	July 22 to August 23
Project Complete	September 13, 2013

Tyee Outlet Weir Cost Estimate (unchanged from our last board meeting)

Tyee Lake Stream Gage Estimate		
McMillen LLC- Feb 2013	With walkway & Shelter	Without Walkway & Shelter
Barges	28,000	28,000
Logging	141,700	141,700
Civil Mobe	50,000	50,000
Walkway & Shelter	298,400	0
Outlet weir	220,752	275,940
Helipad	11,500	11,500
Helicopter Support	284,800	313,280
Bonding (3%)	31,055	24,613
sub total	1,066,207	845,033
Profit (25%)	266,552	211,258
Engineeering	85,000	75,000
SEAPA Costs	50,000	50,000
Project Total	$ 1,467,758	$1,181,291

Swan Lake Reservoir Expansion

The combined efforts of the Agencies (yes, they worked also), SEAPA staff, McMillen LLC (Long View Associates) and Tetra Tech culminated in the submittal of our Initial Consultation Document (ICD) on April 15th, a voluminous read at 642 pages when the reports are included.

The ICD document may be accessed on the web at:
http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20130416-5183

These files are available at SEAPA's website at www.seapahydro.org/slhp.htm

This is the first major step in the FERC process towards our license amendment application. Our next milestone is a major combined agency meeting May 22nd to discuss the ICD. By spending extra effort on the ICD studies, we have chopped a year off the license amendment process. Considering this project was an idea at the December 2011 Board Meeting in Petersburg, we have come a long way.

> ***However, we are at a decision cross-roads. Put succinctly, 100% funding has not been approved by the SEAPA board. There is no guarantee State funds will flow to assist in funding of this project. If 50% State funding were obtained, then the project breaks even using the criteria of additional SEAPA sales at $68/MWh. Above the 50% level, the measurement bar is displaced diesel generation (100% of the additional sales occur in the winter). Additionally this project makes all future projects easier to economically dispatch. Some funding discussion points to consider:***

1) Deciding later to not fund the project (after submittal of the license application) will poison our relationships with the agencies, especially with FERC.

2) To stay on schedule, we need to issue the contract for engineering design this June. There is no sense issuing that contract and then not pursuing the project. If we delay the decision we lose the year we just saved; again a large detriment to future agency relations as SEAPA pushed for and received great agency cooperation. Engineering and continued license amendment consulting costs will exceed $1 M.

3) We have support for this project from the communities; a large monetary and political expense will occur if we re-start the project later, or forego the project.

4) It's tricky, if you indicate you will 100% fund the project then you can bet an "atta-boy" is all that will arrive from Juneau. If you bank on the 50% *grant* when the rhetoric from AEA is *loan,* and then stop the project because a loan was offered, how can we say to our member ratepayers we executed sound planning?

5) This project addresses our hydro storage shortage, and this is the least expensive storage anywhere. $13.4M doesn't even cover the contingency of other options for storage such as Mahoney, Ruth, or Tyee.

6) If a loan is all that is coming from Juneau, then we don't really need much new information, should we fund this project knowing it benefits diesel displacement, but not SEAPA cost/benefit considerations? Isn't that in line with the mission of a non-profit striving for a renewable energy future?

Reservoir Expansion Project Summary to Date:

- An engineering feasibility study was completed February 2012.
- A benefit-to-cost analysis was completed December 2012.
- Study plan submittal and approval during June 2012
- Studies conducted during summer and fall 2012
- First Major multiple meeting resulted in decision of no further studies, additional analysis was requested. This occurred at the February 22, 2013 meeting.
- ICD filed April 15,2013

SWL Raise-NEPA Process and Construction Schedule		
	Start	Finish
SEAPA files ICD with FERC		4/15/13
Agency comments on ICD to FERC	4/15/13	7/1/13
~~Second summer season studies~~	~~5/15/13~~	~~11/15/13~~
Engineering design	6/15/13	2/15/14
FERC independent reviews & BOC	10/15/13	12/15/13
File license amendment		2/15/14
Receive license amendment		2/15/15
Construction	2/15/2015	4/15/2016

Swan Lake reservoir Expansion -Total Project Cost Estimate:

Project Costs	2011 - 2012	2013	2014	2015 - 2016	Total
Feasibility Study					
License consulting	$389,000	$78,000			
Environmental Studies		$136,000			
Amendment Costs (Timber Harvest, 4e constraints etc.)			$557,000		$557,000
Construction & Engineering		$458,350	$739,611	$9,416,698	$10,614,659
Total	$389,000	$672,350	$1,296,611	$9,416,698	$11,774,659
Escalation	$0	$0	$132,903	$1,484,307	$1,617,210
Project Grand Total	$389,000	$672,350	$1,429,514	$10,901,005	$13,391,869

License Amendment and Engineering Costs Relative to Board Budgets

Swan Lake Reservoir Increase License Amendment and Engineering Costs	FY12	FY13	FY14
Budgeted	$240,000[1]	$615,000[2]	$930,949
Actual to Date	$151,421[3]	$321,636	

A portion of our permitting and engineering costs, up to a maximum of $578,000 will be reimbursed using the AIDEA grant funds. In order to avoid the State funding a project that does not mature to construction, we have held off using these funds. The bulk of license amendment costs and engineering efforts will take place in FY14 and FY15, the term of the DCCED grant is 5 years.

Swan Lake Spare Winding

As part of a risk mitigation measure, the SEAPA board approved funds to train Swan Lake personnel on DC Hi Potential Testing (DC Hi Pot), purchase a spare set of coils, and then institute an aggressive pass/fail test every few years at SWL. If the winding fails, it is immediately rewound without design and procurement delays. Upon rewind another set of coils for the second machine is purchased and the cycle repeats. An RFP was issued in October, and after bids were received, we selected Voith with a bid of $847,227 for coil manufacture and delivery to Ketchikan. Design is complete and manufacturing is underway. Coil tests are scheduled for early May; delivery is scheduled for mid-June. Morris Kepler will be traveling to Ontario, Canada the week of May 6th for coil testing verification, and will oversee construction of the storage area later this spring. We expect to use all the funds with little to no carryover into FY14.

Swan Lake Generator Coils (Risk Mitigation)	FY12	FY13	Total
Budgeted	$0	$895,000	$895,000
Actual to Date	$0	$381,252	$381,252

FY12 expenditures were for writing the coil technical specification (Kepler Consulting); FY13 costs are actual scheduled payments for manufacturing the coils. Transfer of the FY12 budget to the FY13 budget was approved at the June 2012 meeting in Ketchikan.

[1] Figure did not include land survey costs ($92,000), but overestimated license amendment and hydraulic assessment engineering efforts. The budget amount was approved at the December Board meeting in Petersburg.
[2] Includes $155,349 for design engineering; $693,504 design engineering estimated for FY14.
[3] Actual FY12 expenditures including the majority of land survey costs.

Tyee Gate Controls Replacement

(No change from our last Board meeting)
We have ordered and received the controls and electrical fittings. This job was delayed until the May-June time period for two reasons:

1) scheduling conflicts with plant employees
2) timing of the replacement of the propane generator

	FY12	FY13
Budgeted	$35,000	$0
Actual to Date	$6,500	

Swan Lake Maintenance Support Managed by SEAPA- a Reliability Assurance Program

During FY13, Morris Kepler and Stan Becktold of Kepler Consulting provided oversight and training services for the repair of the Swan Lake draft tube, turbine welding for cavitation damage, wicket gate repair and wicket gate adjustment, turbine guide bearing heat run, and miscellaneous maintenance training. Their efforts have initiated or completed the following: repair of the draft tubes is ongoing by the Swan crew during early April 2013. Unit #2 turbine guide bearing was replaced in March 2013, and cavitation welding will continue each year during the annual outage. We still have the problematic cooling water passage and RTD well. Both units have developed packing leaks but Unit #1 packing should be replaced with either this maintenance cycle or as maintenance windows open during the fall. Most of this work will take place during FY14. We will budget FY14 O&M work at the June board meeting, but have added scope (according to our procurement rules) to Mr. Kepler's existing Task Order 12-01 to cover the TGB work and unit alignment before the June meeting. FY13 maintenance oversight effort from Kepler Consulting for Swan Lake is itemized below.

Swan Lake Supplementary Maintenance	FY12	FY13	Total
Budgeted	$-	$53,000	$53,000
Actual to Date	$-	$52,207	$52,207

Swan Lake TGB April-May 2013	FY13	Total
Unit #2 TGB Replacement prior to Budget cycle	$12,000	$12,000

Tyee Cooling Water Conversion
(No change from our last Board meeting)

Cooling water (CW) at Tyee is currently supplied off the penstock via a set of pressure reducing valves. Currently the valves controlling cooling water are manually operated; typically the valves are left full open except during manual unit start/stop operation. Tests conducted during 2012 indicate throttling the CW and using the existing pumps is by far a more efficient way to cool the units. The annual value of using the existing CW pumps combined with a simple control system is approximately 1,000 MWh of additional energy deliverable to our members.

Power Lost to 2 Unit Cooling from Penstock

Cooling Wtr Flow		Head	γ	Wtr-Wire	Power at 13.8 kV
gpm	cfs	ft	lbs/ft^3	η	kW
670	1.492869875	1270	62.4	86%	137.9

Power Required from Local Service to Pump-Cool Units

Cooling Wtr Flow		Head	γ	Wtr-Wire	13.8 Kv to	Power
gpm	cfs	ft	lbs/ft^3	η	480V	kW
176	0.392156863	93	62.4	75%	95%	5.8

Test data & Normal Operations

Unit Cooling Wtr Flow (gpm)			Power (kW) Available for Delivery			
	Normal Ops	Test Data	Pwr	Xfrmr 13.8 kV	Delivery	
	Annual Avg (gpm)		at 13.8 kV	to 69 Kv	Losses	
TGB	12	0	KW	98%	6.5%	
LGB	23	6	132	129	121	
UGB/THB	120	12				
Stator	180	70	Annual Energy		1,061	MWh
Total	335	88	Annual Value		$72,124	

Total maximum project costs are estimated at $141,853, which when compared to the value indicates a remarkable two-year pay back for this project. This project is underway (design) and was 100% funded by the board at the March 2013 Board Meeting.

Tyee Cooling Water Conversion

	Cost	Schedule
Contract Prep & Issue	$10,350	April-May
Contract for Mechaincal Work	$81,000	July-Oct
Controls & Electrical	$15,000	Oct
Isolation Valve Restoration	$10,000	Not during Mech.
Commissioning	$7,000	Oct
Project Total	$123,350	
Contingency (15%)	$18,503	
Project Total	**$141,853**	

Request for Offers of Power and Energy (RFO)

We issued the RFO during the week of January 2013; and held a RFO Workshop on April 10th.

For previous references to this "Special Project", please see page 2 of the June 2012 CEO report, and page 3 of the September 2012 CEO report. This project was previously called "A Call for Power". We have changed the name to a "Request for Offers"; for these important reasons:

1 A call for power is often done as a response to a renewable mandate with the issuing utility required to accept the best of the qualified offers. We have received no mandate and some renewable sources do not fit our needs.
2 SEAPA wants to emphasize, even in the title, that we have the option to ask for revisions, initiate negotiation, or outright reject offers.
3 By emphasizing 'offer', the responder to the RFO realizes this is their offer; it is an offer from them - not from a combined entity including the State of Alaska. They are responsible for their offer.

Political forces being a reality, and the fact that a request for offers may actually turn up a good opportunity for SEAPA members, we have designed our RFO as part of an integrated process that includes a potential connection to Kake, includes the Whitman Project, and the 15-foot raise option at Swan Lake. In addition to the proposed and committed projects, we have designed the RFO such that option 4 would use the recently received grant funds (administered by DCCED). Specifically this option and the grant funds would address the SEIRP key finding:

> "Lack of information on Potential Hydro Projects- One significant impediment to the completion of this IRP was the wide variety in the quality and inconclusiveness of information available to evaluate specific hydro projects."

In short, our Request for Offers has four options:

Option 1 Fixed energy value by month. Each year the amount of purchase escalates with the expected load growth. Planning assumptions for this case: no new mine milling operation, .5% summer and winter load escalation after 2015. This option is a simple energy import by SEAPA at the agreed to delivery point, and would be metered with a +/- (plus or minus) 15% monthly delivery tolerance on power, +/- 7% monthly tolerance on energy, annual total energy delivery tolerance of +/- 5%, a +/- 5% delivery tolerance on voltage. The term of this option is from January 2017 to December 2036.

Option 2 A variable capacity and energy schedule. The intent of this option is to share the risk associated with volatile hydro inflow and load quantities, both of which are greatly affected by weather patterns. By accepting a range in the power and energy deliverables, both parties benefit from a flexible agreement. Five year renegotiable periods would start January 2017, and end December 2035 are suggested. The provider is not penalized if power above the minimum is not available, but SEAPA would not be obligated for quantities above the minimums. SEAPA would have first right of refusal of all power and energy available above the minimum levels. Voltage and power delivery criteria as stated with Option 1.

Option 3 Responses to this RFO are not restricted to the suggested SEAPA schedules of

Option 1 and Option 2. Delivery schedules under this option 3 can be variable by month, or flat for the year (after 2023) and in volumes that deviate by as much as 35% from the values of option 1 and option 2. Price and quantity will be negotiated as long as the offer criteria of Section 4 are met. The period for this option is the same as Option 1 and Option 2, but a continuation contract is open to negotiation.

Option 4 Option 4 is a request for a business plan to develop a long term hydro asset in partnership with SEAPA. This option is open to organizations, companies, or entities that have a history of, or experience in renewable energy (including hydropower) engineering, development, or finance. Terms of future plant ownership would be negotiable, but at this time the intent of this option is that SEAPA would hold the FERC permits and license, and would be the asset owner. Output from the plant would be dedicated according to a negotiated agreement, and a preliminary comissioning date (also negotiable) is tentitively planned for 2030.

Expected questions:

1) *Do we have to take the best offer?*

No, but we *should* take the best offer if it fits our mid-term and long-term planning goals, integrates with the KPI, Whitman, and the Swan Lake storage increase, and is at a price that we determine is good for the rate payers.

1) Who approves the purchase agreement?

The SEAPA Board; but emphasis needs to be added here. This is the start of a process that in the end will be a negotiated agreement after a full vetting review. The responders have over a year to answer the request if they are submitting Option 1, 2 or 3. Option 4 is an invitation to bring strategic skills and/or assets into a joint development agreement with SEAPA. This option would leverage our grant funds with the merging benefits of a responder. Respondents to this category have a couple of months to respond.

2) Can SEAPA pursue all options at once?

Yes, this is the follow-up to our strategic plan discussed at the Tyee Board meeting of 2011. We need to openly pursue mid-term and long term solutions at the same time and in a more openly competitive market.

3) What if deliveries fail? Answer- several options, performance bond, decrease in price next month, increase in deliveries by year end, even termination. Failed deliveries can cause damage, so this gets involved. First though, we just need to convey the options and quantities and importantly, the proposed role of State capital funds in this process.

4) How is the interconnection handled? Answer – Please refer to Section5 of the RFO.

5) Why don't we just go out and get our own Hydro?- Answer Option 4

These are exactly the questions we asked ourselves as we put together the RFO. Each Option is designed such that it affords SEAPA the flexibility to negotiate a block of energy or power that fits our system configuration, and only then do we consider the price. It is a request for offers, and even the terms, which at this time we do not foresee any flexibility on; may in the end be open to negotiation, but only if SEAPA Staff, the SEAPA Board, and our legal Counsel have strong confidence the outcome will assist us with a low cost, reliable, secure, energy future.

Department of Commerce, Community, and Economic Development (DCCED Grant)

We received the grant last summer, and set up the accounts and project plan over the fall of 2012. SEAPA's controller, Kay Key, monitors the accounts and manages our submittals to the DCCED. We have five years to execute our grant, and have initiated the Business Analysis Task (RFO) well under budget and on schedule. Remaining funds can be transferred to other tasks with approval by the DCCED. Our next task (to be completed by the end of April) is to write a scope of work and issue an RFP for hydro site evaluation. We expect to sign an agreement(s) by the end of May, and have engineers and technicians in the field by the end of June of this year.

DCCED Grant Tasks	Schedule		Budget
	Start (Month-Year)	Projected Stop	Approved
Hydro Storage-Swan Lake Reservoir Expansion	Oct-13	Oct-14	$578,000
Hydro Site Evaluation	Jul-13	Jun-15	$1,705,000
Electrical Stability/Interconnection Studies	Jun-14	Nov-14	$146,000
System Water & Load Balance Modeling	Jun-14	Oct-14	$112,000
Project Management/Meetings/PR/Analysis	Nov-13	Dec-15	$309,000
RFO-Business Analysis and Power Purchase/Sales/Exchange	Dec-12	Apr-13	$150,000
DCCED Total			$3,000,000

This work is follow-up work that applies to SEAPA as a result of the SEIRP. If you have not read that document, please consider reading the executive summary of Section I: at http://www.akenergyauthority.org/southeastIRP.html

While many of the key findings were contrary to our initial expectations of the intent of the project, these findings are now the basis of future planning. This was emphasized at our recent meeting in Petersburg. Our intent of the grant funds is to apply our efforts such that the key findings are acknowledged while we progress towards the next increment.

Water Management –Short term

(Handouts will be provided at the Board meeting.)

DIESEL PROTOCOL MEMOS

Southeast Alaska Power Agency

DATE: February 1, 2012

TO: SEAPA Board of Directors

FROM: Dave Carlson

SUBJECT: Diesel Protocol

Joe Nelson requested that this topic be placed on the agenda for this meeting. For the benefit of new members, the board has spent portions of several meetings over the past couple years discussing the development of a Diesel Protocol. Simply stated, there may be specific situations and conditions where it would be equally beneficial to all members and ratepayers for SEAPA to authorize and pay for one or more of the utilities to generate with diesel.

Behind this memo, you will find the following documents which will help frame the discussions that took place. Almost a year ago, the board considered a Resolution, which would have been the 'first step' in establishing a Diesel Protocol. There were concerns raised by some board members and no further action was taken.

This may be a good opportunity to resurrect this issue. I do not expect any action will be taken at this meeting but this agenda item will provide an opportunity for you to give direction to staff on how (or if) you would like to proceed on the development of a Diesel Protocol.

The attached documents include the following:

1. Memo from Dave Carlson dated October 27, 2010
2. Memo from Joel Paisner dated October 31, 2010
3. Memo from Dave Carlson dated February 9, 2011
4. Draft Resolution 2011-035

Southeast Alaska Power Agency

DATE: October 27, 2010

TO: SEAPA Board of Directors

FROM: Dave Carlson

SUBJECT: Diesel Protocol

The purpose of this memo is to provide background and discussion points for the development of an agreed-upon Diesel Protocol or policy. As you are aware, diesels are used to generate power due to a number of circumstances. Even though all of the member utilities have diesel generation in place to provide back-up when local or Agency hydro power is unavailable, this generation is costly and has public relations concerns. It is fair to say that everyone is working on the same goal of reducing diesel generation to the maximum extent possible. Nonetheless, diesel generation is required and is an integral component of the overall generation mix. This memo will attempt to define the sets of conditions when diesel generation is required and also provide discussion points to be used in the development of a Diesel Protocol.

I expect this document to spawn some extensive discussions before an agreed-upon Protocol is developed. Any protocol or policy that is developed and agreed to by the Board would be in the form of a resolution.

It is important to remember that the member utilities share in the benefits and risks associated with the Agency's operations. Benefits can flow to the utilities via the wholesale power rate, rebates, meeting reserve requirements, etc. Benefits could also be delivered to the member utilities in other ways including the offset of diesel generation costs in agreed-upon circumstances.

Background: With the completion of the Swan-Tyee Intertie, as well as capital projects that are currently underway or recently completed at both the Swan Lake and Tyee Lake projects, there have been several occasions when the member utilities have had to run diesels because the Agency-owned hydro projects or transmission lines were taken out of service and thereby SEAPA hydro power was unavailable for delivery. Additionally, there could be occasions when it may be advantageous to run diesels for the overall benefit of a more efficient, long-term water management schedule.

The Long-Term Power Sales Agreement ("LTPSA") recognizes that interruptions or restrictions of deliveries (of power) will occur to allow the Agency or a Purchasing Utility to inspect, maintain, repair, test, or otherwise service its facilities or equipment. There is no obligation or requirement that the Agency pay for the diesel generated by a member utility to replace the power unavailable from an Agency-owned hydro project.

While the Agency is under no obligation to pay for diesel generation costs incurred by the member utilities, there may be instances when it could be in everyone's interest to have the

Agency pay for specific and agreed-upon diesel generation costs. This could include cases when sharing of risk seems appropriate. These and other circumstances when diesel generation occurs are addressed in this memo.

Discussion: The following is a summary of the issues and situations that may require diesel generation. There is also the need to develop a policy for how these diesel generation costs are invoiced. The issues and situations are summarized below:

1. Diesel generation required due for a planned capital project or planned maintenance at Agency-owned hydro projects or transmission lines.
2. Diesel generation required due to an unplanned event or outage resulting in the unavailability of power deliveries from Agency-owned facilities.
3. Diesel generation 'recommended' by the Agency due to Operations Plan/Water Management.
4. Diesel generation 'necessary' to support reserve requirements.
5. Diesel generation dispatch from one utility to other interconnected utilities when Agency power is not available.
6. Billing procedures for approved diesel generation by a utility.

There are, no doubt, additional issues and subsets to the above that will be identified as each of these issues are evaluated. The following is a brief discussion regarding each of the issues:

1. **Diesel Generation Required for a Planned Capital Project or Planned Maintenance at Agency-Owned Hydro Projects or Transmission Lines:** The Agency has recently completed, or is in the process of completing, several projects at the hydro facilities that required the hydro project to be offline resulting in the unavailability of power deliveries to a member utility.

   With the new substation construction at Swan Lake and Tyee Lake, incentives were placed in the contract to reduce the number of outage hours thereby reducing the amount of diesel generation by the local utilities. We have also had occurrences when the contractor for a specific capital project agreed to pay for diesel generation costs and the local utility (in this case, Ketchikan) was reimbursed for diesel generation. (Discussion regarding billing procedures is discussed below.)

   Under the LTPSA, the Agency has no obligation to pay for a utility's diesel generation costs if power from an Agency-owned facility is unavailable. However, there are cases when a budget for a planned capital project, upon approval of the Board, could contain an allowance for expected diesel generation costs that a utility is expected to incur as a result of the capital project.

   If the Board agrees that it is acceptable and reasonable that diesel generation costs should be paid by the Agency for planned capital projects, I recommend this be conditioned as follows:

   a. The budget for a specific capital or R&R project that will result in the need for a member utility to generate power with diesel should include a line item for 'expected' diesel generation costs.
   b. The budget for the capital or R&R project with the diesel generation component must be approved by the Board.

c. Invoices for diesel generation submitted to the Agency for payment are approved by the CEO providing they meet the requirements in 'a' and 'b' above.
d. Diesel generation costs for capital or R&R projects that do not include a budget for diesel generation costs will require Board approval prior to payment. This could be for projects where there was not expected to be an interruption of power from an Agency facility but events occur that result in the need for diesel generation by a member utility. If the Board deems it reasonable that a member utility should be reimbursed for unanticipated diesel generation costs, a line item should be added to the Agency's annual budget to cover these costs.

With respect to the planned & scheduled annual maintenance outages (usually in May and June), I recommend that we continue to work to keep these outages as short as possible with the member utilities continuing to pay for diesel generation costs during these outages. However, with that said, this is certainly a topic that deserves board input and discussion. Would it be appropriate for the Agency to budget and pay for some level of diesel generation during these types of planned outages?

2. **Diesel Generation Required Due to an Unplanned Event or Outage Resulting in the Unavailability of Power Deliveries from Agency-Owned Facilities:** In this situation, these are unplanned events that occur from time to time that require utilities to turn on their diesels to meet load and also restore the system. Generally, these are short outages but do require a member utility, or utilities, to incur costs for diesel generation. There is no obligation that the Agency is required to reimburse the utilities for these diesel generation expenses.

   Before providing any recommendations, we need to conduct some research to determine the magnitude of diesel generation costs that have been incurred over the past several years. My impression is that this has not been a huge expense, and I would appreciate input from the member utilities regarding these past costs.

3. **Diesel Generation 'Recommended' by the Agency Due to Operations Plan/Water Management:** In this situation, the Agency could recommend that a member utility should burn diesel in order to maintain or keep water levels at a project from declining below levels agreed to in the Operations Plan. Admittedly, this is a very sensitive issue for the Agency and perhaps even more importantly for the member utilities. There is a significant political hurdle to overcome with the perception that burning diesel should only occur as a last resort. This coupled with the highly unpredictable weather and precipitation forecasts exacerbate this even further. However, it is imprudent to operate projects and manage water reservoirs in a manner that increases the overall cost of power to the ratepayer.

   This subject has already received a good deal of discussion and will require much more but it is important that an agreed-upon framework is developed regarding when diesel generation should be initiated in order to prudently execute water management plans within the interconnected system. Because of the dedicated output provisions in the LTPSA, this will initially affect Ketchikan. Ketchikan is understandably nervous about running diesel and charging their ratepayers a surcharge when there is still water in the reservoirs. However, there will be (and has been) times during the year when our water management model shows that it would be prudent to burn diesel. Consequently, there will need to be some good discussion and an approach developed to address the allocation of risk to both the Agency and the member utilities with respect to these diesel runs. The question of who should pay for the diesel if it turns out the Agency is wrong in its diesel-burn request (i.e., an unexpected rain or series of rain events occur such as the events in late September and October of this year) needs discussion and agreement. Conversely, should Ketchikan be required to pay for the loss of generating efficiency should the Agency turn out to be correct (the rain events do not occur as hoped)?

An example of a diesel request follows: During January 2009 high loads and low inflows caused the rate of draft at Swan Lake to exceed the guide curve draft rate for several weeks. To preserve head, and to re-establish a rate of draft on the guide curve, SEAPA suggested to KPU that they generate with diesel to the extent that Swan generation would be limited to one unit. KPU did not want to burn diesel early in the winter season because the public would not understand a diesel surcharge when Swan Lake and Tyee Lake were not drafted, and rate payers were in the process of paying previous surcharges. This case was a peculiar event as Tyee would not be able to supplement Swan as much as usual later in the winter due to the rewind project. In the end, a strong storm increased inflows and loads decreased. What if the weather pattern had remained cold and dry? KPU absorbed the risk that weather would turn warm and wet in sufficient time that the rewind constraint would not cause an extended period of diesel generation. The risk trade-off was a greater diesel generation level in the future if diesel is not used now to a limited degree. This example is typical of water management issues and also shows that each case is specific in nature, and that a supplemental diesel reimbursement for water management issues needs to be judged on a case-by-case basis.

4. **Diesel Generation 'Necessary' to Support Reserve Requirements:**

   a. Spin Reserve: With the increase of conversions to electric heating, there will be occasions in the very near future when there is not enough installed hydro capacity within the interconnected system to meet these loads and provide spinning reserve. SEAPA has presently been providing this spin reserve for the member utilities. The member utilities that have their own hydro (Ketchikan & Petersburg) generally do not supply this reserve themselves and rely on SEAPA's capacity to provide this spin. SEAPA is currently under a spin reserve rule to continuously provide 4 MW of on-line reserve capacity. Our installed full reservoir capacity is 50 MW. After deductions for voltage support this capacity drops to 46 MW. In mid-winter this capacity drops to 44 MW because of reduced head in the reservoirs. If the net load to SEAPA exceeds 40 MW in mid-winter, SEAPA can meet this load, but the 4 MW spin reserve criteria will not be met. Should we waive the spin reserve rule during very high loads, which is the most critical time to provide reserves, or should diesel supplement the generation mix such that spin reserve is provided?

   b. Contingency Reserve Storage: There is currently a draft limit imposed at Swan Lake that when at or near elevation 280, diesel generation should be initiated to preserve water in Swan Lake for emergencies. If there is sufficient storage in Tyee to refill Swan after the Swan elevation drops below Elevation 280, then why burn the diesel up front? The attenuated risk is now a failure of the Tyee equipment or the Tyee to Bailey transmission path. If Tyee fails and KPU diesel fails, there is still adequate diesel capacity spread across the system to recharge the reservoirs. This example could be one where the option of shared resources reduces diesel generation costs.

5. **Diesel Generation Dispatch from One Utility to Other Interconnected Utilities when Agency Power is Not Available:** This is a discussion that needs to take place primarily between the utilities. In situations when an event occurs resulting in an unplanned outage affecting the entire system, there could be good reason and justification to have one utility run diesels to support all the interconnected utilities. Operational issues and system reliability issues need to be addressed, of course, to determine if this is even feasible. Assuming it is, however, the utilities would need to agree and develop a protocol on the dispatch and billing for this power.

6. **Billing Procedures for Approved Diesel Generation by a Utility:** An agreed-upon procedure for invoicing the costs of diesel generation should be developed. The obvious components that could be included in these billing charges include:

   - Cost of diesel
   - Cost of lube oils
   - Cost of labor
   - Amortized capital costs
   - Administration and Overhead

   My recommendation with respect to billing is to keep it simple and include only the cost of diesel with an associated credit for the energy that would have been purchased at the current wholesale power rate (6.8 cents/kWh).

I look forward to some good discussion at the meeting. We are breaking new ground here and are in the first steps in the development of a Diesel Protocol policy. As policy makers, I would appreciate your initial thoughts regarding whether SEAPA should consider including diesel expenses within its budgets in certain agreed-upon situations. There are obvious operational discussions that will have to take place among the utilities at the Reliability Committee meetings. I believe we should strive for solutions that benefit and make sense for the ratepayers and our member utilities.

MEMORANDUM

TO: Dave Carlson, CEO, Southeast Alaska Power Agency

FROM: Joel Paisner, Ater Wynne LLP

DATE: October 31, 2010

RE: Payment of Diesel Generation Costs

I. QUESTIONS

1. In connection with the Southeast Alaska Power Agency's ("SEAPA" or the "Agency") obligations to provide continuous electrical service to its Purchasing Utilities under the Long Term Power Sales Agreement ("PSA"), is the Agency required to pay for diesel generation run by the Purchasing Utilities?

2. In connection with SEAPA's obligations to provide continuous electrical service to its Purchasing Utilities under the PSA, is the Agency prohibited from paying for diesel generation costs, in certain board-determined circumstances?

II. DISCUSSION AND ANSWER

Electric Power is to be continuously available by the Agency to its Purchasing Utilities at the agreed upon Delivery Point for each particular system. PSA, Section 4. However, this obligation is limited by the following exceptions:

> (a) Interruptions or restrictions of deliveries caused by the reasonable need of the Agency or its Purchasing Utilities to "inspect, maintain, repair, test or otherwise service its facilities or equipment in accordance with Prudent Utility Practice and standards." Id. Such interruptions shall excuse the Agency from its obligations under the Operations Plan.
>
> (b) When a cause or event is *not in the control* of the Agency.(emphasis added)

PSA Section 4(a). Each party to the PSA is obligated to reasonably limit any planned interruptions or restrictions in service, provide reasonable notice of planned outages, and to plan such known outages during light load periods.

The PSA limits the Agency's legal obligation regarding continuity of service to the Purchasing Utilities, and it is not obligated to pay for the outages and restrictions outlined above. Additionally, the PSA states that it "shall not create on the part of the Purchasing Utilities and the Agency any legal duty to maintain continuity of electric power service to any Purchaser's retail customers." Id at Section 4(a)(iii). In other words, if delivery of electric power to the Purchasing Utilities is interrupted, either through planning or causes beyond the control of the

Agency, the Agency is not responsible to pay for any outages for these excused circumstances. There is no obligation under the PSA to pay either the Purchasing Utilities for the cost impacts from such outages or pay the customers of the Purchasing Utilities for such outages.

The Purchasing Utilities remedy for system disturbances is to refuse to accept power from the Agency until reliability is restored. See PSA, Section 4(c). It is not refusal to pay for impacts from excused interruptions as defined in the PSA.

The question related to this is whether the Agency, in certain defined circumstances *may* pay for system outages, interruptions and restrictions. The PSA itself does not address this question, as it simply defines the core obligations between the Agency and its Purchasing Utilities. It is the Agency bylaws that govern this question. The bylaws define which decisions require unanimous approval of the Board of Directors, which require a super majority (4 of 5) and which require a simple majority vote (3 of 5).

For example, unanimous decisions are those that alter the bylaws, or release of a party from its obligation to take Firm Power. Supermajority decisions are those that relate to the addition of hydroelectricity or transmission, approval of the Operations Plan, the sale of surplus power, or entering into long term service or operations contracts.

The proposal reviewed by this memorandum relates to an overall diesel generation plan and protocol. In it, the proposal is that under certain circumstances – Agency proposed water management, or Agency proposed repair and facility replacement, or others yet to be discussed, that the Agency budget for the cost of each Purchasing Utility's diesel generation costs due to the agreed upon Agency action. To the extent these payments are included in a budget adopted by the Board, the bylaws do not prohibit such payments. However, in the event such payments are made pursuant to, and part of the Operations Plan, a supermajority must approve such plan, as is required in the Bylaws. See Bylaws, Section 2.11(e).

III. CONCLUSION

The PSA establishes the overall obligations between the Agency and its Purchasing Utilities regarding the sale of electric power. The Agency sells its electric power on a continuous basis, however the PSA recognizes that events occur outside the direct control of the Agency, and excuses delivery of electric power in those circumstances. An example of such excused circumstances was the recent storm that impacted the Swan – Tyee Intertie and the operations at Swan Lake. Clearly those circumstances are beyond any party's control, and any impacts are to be born by each of the parties. Thus, generally, if any Purchasing Utility is required to use diesel generation to supply its customers, under the PSA, it is obligated to pay for such costs. This has been a historical practice of the Agency and its Purchasing Utilities as well.

The PSA does not address the question regarding whether the Agency, in certain defined and approved circumstance may pay for the diesel generation at a Purchasing Utility. Referring to the Agency bylaws, as part of the budgeting process, the Agency may include the costs of

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diesel generation that may occur. As proposed, the practice of including diesel generation costs at a Purchasing Utility impacted due to an approved repair, replacement or restoration project is well within the authority of the Board to consider. It is important to note that in the event such plans to contribute to diesel generation costs are part of the annual Operations Plan, the approval of such policies must be pursuant to a supermajority of the Board.

If you have any questions or further concerns, do not hesitate to let me know.

1076192/1/JRP/104637-0000

Southeast Alaska Power Agency

DATE: February 9, 2011

TO: SEAPA Board of Directors

FROM: Dave Carlson, CEO

SUBJECT: Diesel Protocol Resolution

Over the past year or so, the Board has discussed the development of a Diesel Protocol policy. I am attaching my memo to you dated October 27, 2010 that described the various circumstances when diesel generation by the member utilities may be required. Also attached is a memo from Joel Paisner dated October 31, 2011 that addresses this subject from a legal perspective. The Power Sales Agreement does not require SEAPA to pay for any costs Member Utilities have related to planned or unplanned outages, including any diesel costs. Except in a few special circumstances in the past, these diesel costs were paid by the member utility without any reimbursement. However, there may be situations where it may be advantageous for SEAPA to reimburse certain diesel generation costs. The attached resolution before you includes those circumstances and situations where I believe there was a consensus among board members where SEAPA could reimburse utilities for diesel costs. These are as follows:

A. A planned and budgeted capital or R&R project that includes a line item within the budget for anticipated diesel generation resulting from the construction or implementation of the project.

B. A capital or R&R project that was not anticipated or budgeted but arises during the fiscal year resulting in the need for a member utility to generate power with diesel. This type of project would require board approval through a budget amendment and the project would require a specific line item for the anticipated diesel generation.

C. Annual Maintenance: Each year the projects and transmission lines are taken out of service to conduct annual maintenance. The member utilities have paid for these diesel generation expenses in the past. Under these circumstances, the specific amount of diesel generation to be reimbursed to the member utilities must be included as a separate line item in the board approved budget.

There are, of course, other circumstances when diesel generation could be required but the circumstances listed above were the ones that appeared to have board consensus. This resolution is a starting point and not the stopping point. This policy can always be amended in the future.

Regarding the reimbursement to the member utilities for diesel generation, the resolution specifies that the following policy will apply:

A. Reimbursement will only cover fuel costs. No labor, capital, lubricants, mark-up, or other expenses will be reimbursed. Upon request from SEAPA, the member utilities will provide verification of the fuel cost.

B. The member utilities will pay SEAPA, at the prevailing Wholesale Power Rate, for the amount of kWh generated. This payment will be shown as a credit on the fuel invoice.

Attachments:
10-27-10 Memo from Carlson to Board
10-31-10 Memo from Paisner to Carlson
Resolution No. 2011-35

Resolution 2011-035

RESOLUTION OF THE SOUTHEAST ALASKA POWER AGENCY REGARDING DIESEL PROTOCOL, AGENCY USE OF DIESEL FOR PLANNED EVENTS AND PAYMENTS TO MEMBER UTILITIES

Recitals

WHEREAS, the Member Utilities of the Southeast Alaska Power Agency (or "Agency") all have the capability to provide diesel generation to provide electric service to their customers when local or Southeast Alaska Power Agency hydro power is unavailable; and

WHEREAS, the Member Utilities and the Southeast Alaska Power Agency have entered into a Long Term Power Sales Agreement whereby the Agency has agreed to sell and the Member Utilities have agreed to buy the Electric Energy from its two Projects (Tyee Lake and Swan Lake); and

WHEREAS, the Southeast Alaska Power Agency as part of its obligations as owner of the two Projects and the Swan-Tyee Intertie, must plan, schedule and complete ongoing capital improvement projects, and repair and replacement projects, that may result in certain planned outages of some or all of the two Projects and the Swan-Tyee Intertie; and

WHEREAS, due to unplanned events, storms, outages, and other force majeure events, may result in the unavailability of power from the Agency-owned facilities requiring Member Utilities to resort to diesel generation to serve customer loads; and

WHEREAS, consistent with the Operations Plan, and with the system wide requirements to support necessary reserves, and consistent with prudent utility practices, the Southeast Alaska Power Agency hereby approves and authorizes the following procedures to address the impacts to its Member Utilities for use of diesel generation in specific circumstances.

NOW THEREFORE BE IT RESOLVED, the Southeast Alaska Power Agency, shall in certain circumstances, pay for and defray the costs of a Member Utility's diesel generation.

1. The Long Term Power Sales Agreement between the Agency and the Member Utilities governs all sales, purchases and delivery of Electric Energy and capacity from the Agency Facilities. All parties to the Long Term Power Sales Agreement acknowledge that, consistent with Section 4, power from the Agency Facilities may be interrupted due to events beyond the control of the Agency, and for maintenance, repair, testing or other similar circumstances of Agency facilities.

2. Consistent with the Long Term Power Sales Agreement, and Prudent Utility Practices, the Southeast Alaska Power Agency agrees to provide certain payments for its Member Utilities diesel generation, but the following conditions must be met before any such payments will be made:

    (a) Any planned capital project, repair & replacement project or scheduled annual maintenance for SEAPA facilities including transmission lines must include a specific budget line item for planned outages requiring diesel generation directly caused by the capital project, repair & replacement project or scheduled annual maintenance.

(b) The budget for the planned capital project, repair & replacement project or scheduled annual maintenance is approved by the Agency Board of Directors, consistent with Agency Bylaws and the Long Term Power Sales Agreement.

(c) In the event a repair and replacement project arises during the fiscal year that was not approved for that year's budget, the Agency Board of Directors shall specifically approve any proposed payments for diesel generation directly related to the repair and replacement project.

3. Payments made shall only be for the direct actual cost of diesel to be purchased. No labor, capital costs, materials, overhead or other extra costs will be reimbursed by the Agency pursuant to this diesel reimbursement resolution. Each Member Utility will provide the Agency with an invoice detailing both the direct fuel costs authorized herein, as well as a credit back to the Agency for energy generated during the outage period. The energy credit to the Agency shall be at the then current Wholesale Power Rate annually established by the Agency.

4. Any other payments from the Agency to the Member Utilities must be approved by the Board of Directors of the Agency, consistent with its Bylaws and the Long Term Power Sales Agreement between the Agency and its Member Utilities.

5. In the event there is a conflict between the policies established by this resolution, and the Long Term Power Sales Agreement, the Long Term Power Sales Agreement shall govern.

THE SOUTHEAT ALASKA POWER AGENCY,

DATED ____________________

By: ____________________

Its: President

ATTEST: ____________________

SOUTHEAST ALASKA POWER AGENCY

Date: April 18, 2013

To: Trey Acteson

From: Sharon Thompson, Executive Assistant

Subject: Resolution 2013-048 | SEAPA Conflict of Interest Policy

At the March 5-6, 2013 board meeting, the board passed a motion adopting a Conflict of Interest Policy. Staff has drafted the attached Resolution adopting the policy provided in the March 5-6, 2013 board packet to memorialize the board's motion in the form of a resolution.

SUGGESTED MOTION
I move to adopt Resolution 2013-48 adopting SEAPA's Conflict of Interest Policy.

Resolution 2012-048**

The Southeast Alaska Power Agency
Memorializing Adoption of Conflict of Interest Policy

WHEREAS, at its board meeting held on March 5-6, 2013, the Board of Directors of The Southeast Alaska Power Agency ("SEAPA") passed a motion adopting a Conflict of Interest Policy and desires to memorialize the policy in the form of a resolution;

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of Southeast Alaska Power Agency formally adopts the Conflict of Interest Policy attached hereto and made a part hereof.

Approved this 25th day of April 2013.

SOUTHEAST ALASKA POWER AGENCY

By ______________________________________
Bob Sivertsen, Chairman of the Board

ATTEST:

____
Sam Bergeron, Secretary/Treasurer

SEAPA Policy on Conflict of Interest

1. Objective.

The Southeast Alaska Power Agency ("SEAPA" or the "Agency") is a separate, independent utility organized pursuant to Alaska Statutes Section 42.45, as a Joint Action Agency. The Board of Directors is appointed by the Member Utilities that are the wholesale purchasers of all energy and capacity from the Agency Facilities. All powers of the Agency are exercised through its Board of Directors, and the day-to-day affairs of the Agency are managed by the Chief Executive Officer and Agency employees, under the direction of the Board of Directors.

By approving this policy, the Board of Directors affirms that it acts with the highest regard to ethical business practices, consistent with its bylaws and the laws of the State of Alaska. This policy is adopted to clarify the ethical standards it expects of each Director, Alternate Director and Agency employee. It establishes a policy for Directors, Alternate Director's and Agency employees to avoid conflicts of interest, and potential conflicts of interest.

2. Definitions.

a. **Interested Person**. Any Director, Alternate Director, and Employee of the Agency who has a direct or indirect Financial Interest, as defined below, is an Interested Person.

b. **Financial Interest**. A person has a Financial Interest if the person has, directly or indirectly, through business, investment, or family:

i. An ownership or investment interest in any entity with which the Agency has a transaction or arrangement;

ii. A compensation arrangement with the Agency or with any entity or individual with which the Agency has a transaction or arrangement; or

iii. A potential ownership or investment interest in, or compensation arrangement with, any entity or individual with which the Agency is negotiating a transaction or arrangement.

Compensation includes direct and indirect remuneration as well as gifts or favors that are not insubstantial.

A Financial Interest is not necessarily a conflict of interest. Under the terms of this Policy, a person who has a Financial Interest may have a conflict of interest only if the appropriate governing board, or the CEO in the case of an Employee of the Agency decide that a conflict exists.

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3. Policy.

a. Each Director, Alternate Director, or Employee of the Agency, shall avoid conflicts of interest or potential conflicts of interest, and shall fulfill their respective obligations to the Agency, consistent with the Agency bylaws, policies and any applicable Agency employment agreement, and conduct themselves with the highest degree of ethical business conduct.

b. Directors, Alternate Directors and Employees are prohibited from receiving gifts, fees, loans, or favors from Agency consultants, contractors, and suppliers which obligate or induce them to compromise their responsibilities to negotiate and award contracts, prevent them from fulfilling their respective obligations to the Agency, and prevent them from keeping the best interests of the Agency in mind.

c. This policy does not prohibit receiving meals, gifts or related items of an insubstantial value so long as they meet the standards of ethical business conduct, and are consistent with the Agency bylaws, policies and any applicable employment agreements.

4. Procedures.

a. **Duty to Disclose**. In connection with any actual or possible conflict of interest, an Interested Person who is a Director or Alternate Director must disclose the existence of the Financial Interest and be given the opportunity to disclose all material facts to the Board of Directors who will consider the proposed transaction or arrangement. In the case of an Employee of the Agency, the Interested Person must disclose the existence of the Financial Interest, and be given the opportunity to disclose all material facts to the Chief Executive Officer who will consider the proposed transaction or arrangement.

b. **Determining Whether a Conflict of Interest Exists – Directors and Alternate Directors.** After disclosure of the Financial Interest and all material facts, and after any discussion with the Interested Personthe remaining board members shall decide if a conflict of interest exists.

c. **Determining Whether a Conflict of Interest Exists – Agency Employee.** After disclosure of the Financial Interest and all material facts to the Chief Executive Officer, the Chief Executive Officer shall decide if a conflict of interest exists.

d. **Procedures for Addressing the Conflict of Interest - Director.**

i. An Interested Person may make a presentation at the board meeting to be considered when addressing a conflict of interest.

ii. The Chairperson of the Board shall, if appropriate, appoint a disinterested person or committee to investigate alternatives to the proposed transaction or arrangement.

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iii. After exercising due diligence, the governing board or committee, if appointed, shall determine whether the Agency can obtain with reasonable efforts a more advantageous transaction or arrangement from a person or entity that would not give rise to a conflict of interest.

iv. If a more advantageous transaction or arrangement is not reasonably possible under circumstances not producing a conflict of interest, the governing board or committee shall determine by a majority vote of the disinterested directors whether the transaction or arrangement is in the Agency's best interest, for its own benefit, and whether it is fair and reasonable. In conformity with the above determination it shall make its decision as to whether to enter into the transaction or arrangement.

e. **Procedures for Addressing the Conflict of Interest - Employee.** In the case of an Employee of the Agency, the Chief Executive Officer shall make the determination of whether there is a conflict of interest. The Chief Executive Officer may consult the board of directors in his or her reasonable judgment to make the conflict of interest determination.

5. Confidential Information

a. No Director, Alternate Director or Agency Employee may disclose confidential information gained by reason of their position, nor may they otherwise use such information for his or her personal gain or benefit, unless required by the Agency bylaws or other applicable laws.

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SOUTHEAST ALASKA POWER AGENCY

Date: April 18, 2013

To: Trey Acteson

From: Sharon Thompson, Executive Assistant

Subject: Revision to Digital Communication Device Policy

At the March 5-6, 2013 board meeting, staff advised that they would bring an iPad policy revision to the board for its consideration after a request by a former board member to purchase their iPad. After board discussion on the topic, it was determined that revisions would include an opportunity for buyout of the devices, appoint SEAPA as the depository and distributor of any returned devices, and purchaser of any new devices. Staff has drafted the attached Resolution and revised policy for the board's consideration.

SUGGESTED MOTION
I move to adopt Resolution 2013-47 adopting a Revised Digital Communication Device Policy.

Resolution 2013-047

The Southeast Alaska Power Agency
Approving Revised Digital Communication Device Policy

WHEREAS, on June 26, 2012, the Board of Directors of The Southeast Alaska Power Agency ("SEAPA") adopted a policy on Digital Communication Devices, which policy is attached to Resolution 2012-041; and,

WHEREAS, on April 25, 2013, the Board of Directors elected to revise the policy on Digital Communication Devices to provide an opportunity for buyout of the devices, appoint SEAPA as the depository and distributor of any returned devices, and purchaser of any new devices.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of Southeast Alaska Power Agency formally adopts the attached revised Digital Communication Device Policy dated April 25, 2013 in place of the previously adopted Digital Communication Device Policy dated June 26, 2012.

Approved this 25th day of April 2013.

SOUTHEAST ALASKA POWER AGENCY

By ____________________________________
Bob Sivertsen, Chairman of the Board

ATTEST:

____
Sam Bergeron, Secretary/Treasurer

SEAPA

Southeast Alaska Power Agency

BOARD POLICY

BOARD OF DIRECTORS
REVISED
DIGITAL COMMUNICATION DEVICE POLICY

I. OBJECTIVE:

To establish guidelines and responsibilities for all Directors in the use of Digital Communication Devices provided by SEAPA.

II. POLICY:

A. SEAPA's Board of Directors recognize the benefits of utilizing digital communication and information instead of paper-laden board packets and binders. An analysis has determined the resulting benefits to the Agency will outweigh the up-front equipment purchase cost.

B. SEAPA will provide iPads to its Member Utilities as follows: Four (4) to the City of Ketchikan, two (2) each to the Petersburg Borough and the City & Borough of Wrangell, and two (2) to the 'at large' Member Community. When a Director's tenure is complete, they shall return the iPad they were provided to SEAPA for re-distribution as necessary. The iPads will be equipped with a minimum of 32-gigabytes of memory and 'Wi-Fi' coverage only. 3G or other 'cell' coverage is unnecessary as board meetings are only held where wireless internet coverage is provided. The iPad models provided shall be similar in price and provided according to availability.

1. The recipient of the iPad will load the iAnnotates application or other similar application, agreed to by the Board, as the most appropriate application required for proper information retrieval. SEAPA will reimburse the expense of the iAnnotates application to the Director upon presentation to SEAPA of a receipt for the purchase. Any other applications loaded on the iPad will be at the Director's personal expense.

2. Unless covered otherwise by warranty, any accidental damage to the iPad shall paid by SEAPA, unless the damage is caused by negligence.

3. It is anticipated that the technological life of the iPads may not exceed three (3) years therefore the iPads will be assessed every three years by SEAPA. SEAPA will purchase upgraded devices and provide them to the Member Utility for each appointed Director as necessary.

4. Directors may exercise the option at the end of their tenure on the board to purchase the device for the used market value of the device as

determined by SEAPA. If the useful life of the device has expired, it shall be returned to SEAPA for disposal.

5. Since iPads are 'synced' to the user's computer, it is suggested that the user request assistance from the respective Member Utility's information technology personnel to assist them in becoming more efficient and effective in utilizing the equipment.

III. RESPONSIBILITY:

It is the responsibility of the Chairman to oversee this policy.

ADOPTED by the SEAPA Board of Directors this 25th day of April 2013.

Signed:	Attest:
______________________________	______________________________
Secretary-Treasurer	Chairman

SOUTHEAST ALASKA POWER AGENCY

Date: April 18, 2013

To: Board of Directors

From: Trey Acteson, CEO

Subject: Resolution 2013-046 Re: Swan Lake Reservoir Expansion Project

Attached for your consideration is Resolution 2013-046 commiting your support to proceed with development of the Swan Lake Reservoir Expansion Project and to continue to pursue funding from the State for the project.

SUGGESTED MOTION
I move to adopt Resolution 2013-46 formally supporting a commitment to proceed with development of the Swan Lake Reservoir Expansion Project and in parallel continue to seek funding support from the State of Alaska.

Resolution 2013-046

The Southeast Alaska Power Agency
Support for Swan Lake Reservoir Expansion Project

WHEREAS, the three member communities of Petersburg, Ketchikan, and Wrangell, and the Ketchikan Gateway Borough have formally adopted Resolutions in support of The Southeast Alaska Power Agency's (SEAPA) Swan Lake Reservoir Expansion Project (Project); and,

WHEREAS, during the 2013 Alaska legislative session, a funding request of $12.3 million dollars was submitted by SEAPA to the Alaska Legislature for direct legislative funding consideration to fund the Project to completion; and,

WHEREAS, funds were not awarded to SEAPA from the 2013 Alaska legislative session and a cost and benefit analysis has established the benefits of the Project; and,

WHEREAS, the Alaska Department of Commerce, Community & Economic Development appropriated $3 million dollars for a Hydroelectric Storage, Generation, Transmission & Business Analysis, of which funds of $578,000 were allocated to the Swan Lake Project; and,

WHEREAS, an Initial Consultation Document for the license amendment process to increase storage at the Swan Lake Hydroelectric Project has been filed with the Federal Energy Regulatory Commission; and,

WHEREAS, staff is preparing to initiate a license amendment with the Federal Energy Regulatory Commission for the Project;

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of The Southeast Alaska Power Agency formally supports a commitment to proceeding with development of the Swan Lake Reservoir Expansion Project and in parallel continue to seek funding support from the State of Alaska.

Approved this 25th day of April 2013.

SOUTHEAST ALASKA POWER AGENCY

By ______________________________
Bob Sivertsen, Chairman of the Board

ATTEST:

____
Sam Bergeron, Secretary/Treasurer

SOUTHEAST ALASKA POWER AGENCY

DATE: April 18, 2013

TO: Trey Acteson, CEO

FROM: Steve Henson, Operations Manager

SUBJECT: Tyee Boat Dock Replacement Project | R&R Project No. 230-13

Staff advertised for bids on the Tyee Lake Boat Dock Replacement Project. Two (2) bids were received from the following:

Pool Engineering, Inc.
Seley Properties Ltd., d/b/a Seaborne Marine Services JV

Both bidders have experience with respect to providing marine services. Both bids were clear and concise as to services provided and are considered responsive.

Seaborne Marine Services is the apparent low bidder.

Both bids were in excess of the budgeted amount. An amendment to the R&R Budget will be required before award of the contract can proceed. A copy of the R&R summary provided in the FY13 budget on the project is attached.

SUGGESTED MOTION
I move to authorize staff to amend the FY13 budget with an increase to R&R Project No. 230-13 from $55,000 to $75,000 and further authorize staff to enter into a contract with Seley Properties Ltd., d/b/a Seaborne Marine Services for an amount not to exceed $75,000 for the Tyee Dock Replacement Project.

Attachment:
R&R Project 230-13 Summary Sheet

SEAPA
Southeast Alaska Power Agency

FY2013
R&R PROJECT
R&R 230-13

`Project Name: **Boat Dock Replacement at Tyee**

Project Number: **230-13**

Project Description: Replacement of floating dock system

Project Cost Estimate: $55,000

Project Start Date: July 2012

Project Completion Date: September 2012

Project Discussion: The existing float system was custom-constructed in Wrangell in 1993 by Manny Ludwigson. It is treated wood framing and decking on log floatation. The current condition of the dock is poor. Floatation logs are becoming water-logged, causing the float to list laterally approximately 10-12" in its 8-foot width. Framing members are rotting and crumbling with rough treatment as they are hauled ashore for storage.

Proposed Project Scope: Contract for design/build HDPE floatation docks designed for attachment to existing piling and approach. Float sections will be decked by treated wood or an alternate galvanized steel grate. Lifting eyes will be installed in float sections.

Existing dock will be removed and new delivered as part of the project contract. Anticipate bid process for outside contractor supply and install.

(2) 24'8" x 8'4" HDPE float sections
(2) 19'11" x 8'4" HDPR float sections
(1) 10'3" x 9'6" HDPE ramp landing float w/additional floatation
(5) Pile hoop w/removable slide
Assorted required hardware and fasteners heavy galvanized or in alternate SS

Project Cost Estimate Summary	Item	Cost
	Labor	$10,000
	Material	$40,000
	Design/Engineering	$3,500
	Project Mgt/Inspection	$1,500
	Total	$55,000

Project Cost Estimate Discussion: Recommended to purchase installed project through open bid process contract. Suggested that contractor be paid 50% bid amount when float sections are delivered to Wrangell. Final disbursement when new dock delivered to Tyee facility AND old dock removed from site.

Budget Amount Requested for FY2013: $55,000

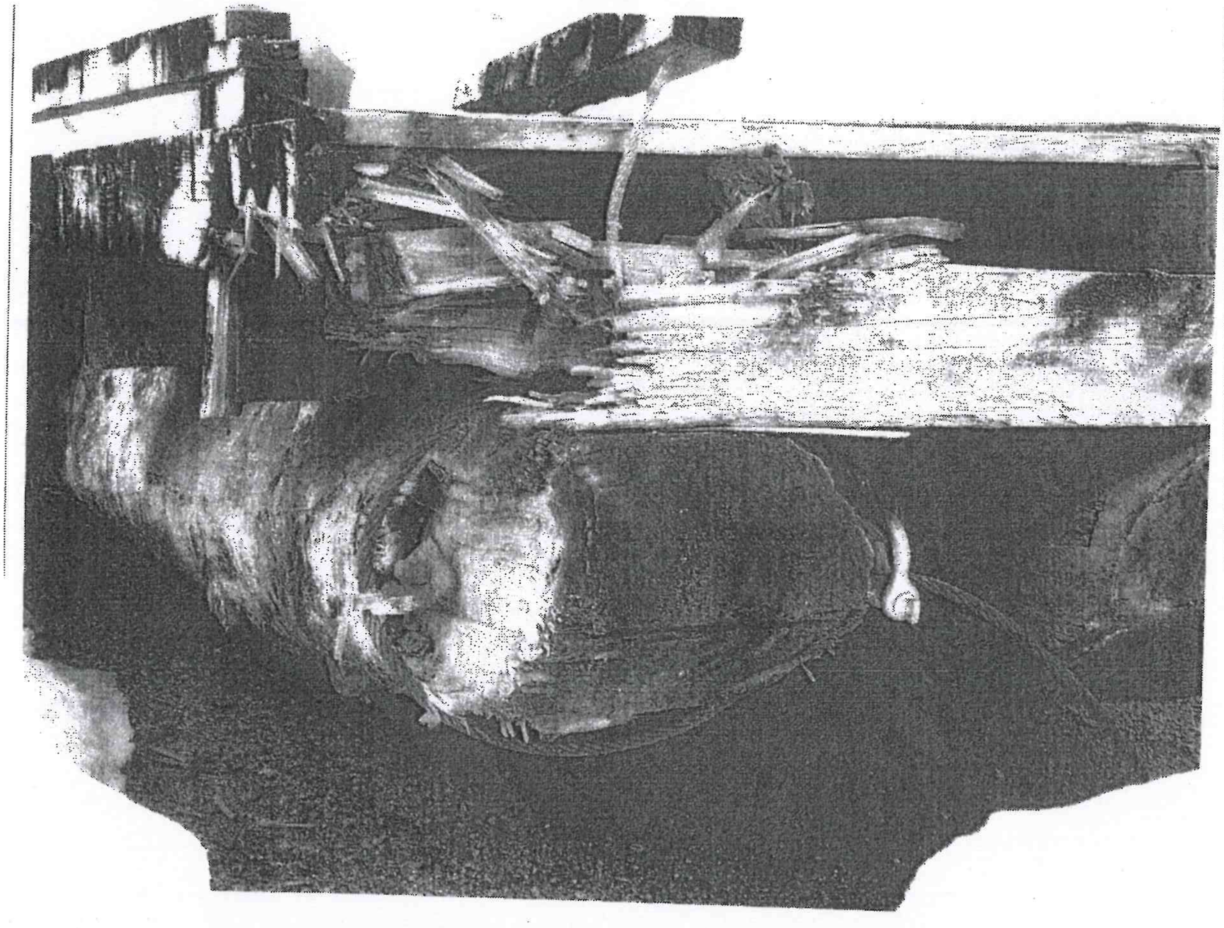
Project Responsibility:

Project Manager: TBPA General Manager/Steve Beers/Steve Henson
Design/Engineering: Contractor / TBPA Manager
Construction: Contractor
Construction Manager/Inspection: TBPA Gen Mgr/ Steve Beers / Steve Henson

SEAPA
Southeast Alaska Power Agency

FY2013
R&R PROJECT
R&R 230-13

Photo of existing dock:



R&R Project / Budget Approval		
Submitted By	Paul Southland	03/27/12
CEO Approval	D.Carlson	May 2012
Project Approval	SEAPA Board	06/27/12
Budget Approval FY13	SEAPA Board	06/27/12

R&R Project Contracts (Contract Description, number and award date)		

Attach Project Close-Out Summary upon completion of project:

SOUTHEAST ALASKA POWER AGENCY

DATE: April 18, 2013

TO: Trey Acteson, CEO

FROM: Steve Henson, Operations Manager

SUBJECT: Satellite Communications System Project

Staff contracted with Segrity LLC. to provide technical specifications regarding a satellite communication link between SEAPA projects.

Staff advertised for bids on the Satellite Communications Project for the SEAPA system. Bids are due to SEAPA on April 19, 2013. A review of the proposals received will be conducted by SEAPA staff and our technical consultant. Funding of $2,150,000 was budgeted in FY13 for the 'Skywrap' Project from R&R Project No. 232-13, which has been renamed the Communications Upgrade Project.

A recommendation for a contractor chosen from responsive bidders will be provided at the April 25 Board meeting. A suggested motion format is provided below which can be utilized at the board meeting in the event the board elects to award the contract.

SUGGESTED MOTION
I move to authorize staff to enter into a contract with ____________________________________ for an amount not to exceed $_______________ for the Satellite Communications System Project.

SOUTHEAST ALASKA POWER AGENCY

DATE: April 18, 2013

TO: Trey Acteson, CEO

FROM: Steve Henson, Operations Manager

SUBJECT: Tyee Gatehouse Propane Generator Replacement Project

Staff advertised for bids on a 45KW propane generator set for the Tyee Gatehouse Generator Replacement Project. Bids are due to SEAPA on April 19, 2013. A review of proposals will be conducted by SEAPA staff. Funding of $82,000 was budgeted in FY13 for R&R Project No. 234-13 for the Gatehouse Generator Project. Copies of the R&R summary sheets are attached.

A recommendation for a contractor chosen from responsive bidders will be given at the April 25 Board meeting. A suggested motion format is provided below which can be utilized at the board meeting in the event the board elects to award the contract.

SUGGESTED MOTION
I move to authorize staff to enter into a contract with ____ for an amount not to exceed $_____________ for the Tyee Gatehouse Propane Generator Replacement Project.

Attachment:

R&R Project 234-13 Summary Sheet

SEAPA
Southeast Alaska Power Agency

FY2013
R&R PROJECT
R&R 234-13

Project Name: **Gatehouse Generator & Propane Tanks at Tyee**

Project Number: **234-13**

Project Description: Replace propane generator at the Tyee Gatehouse and remove, replace and fill the two propane tanks.

Project Cost Estimate: $82,000

Project Start Date: 07/01/2012

Project Completion Date: 06/30/2013

Project Discussion: The propane generator at the Tyee gatehouse is required for station service for maintenance and repair efforts and it is essential for operation of the ventilation equipment to allow safe entry into the confined space of the gate shaft. It has been problematic for the last 10 years with starting and operating. The generator was installed in 1984. It also powers the bunk house for extended stays during maintenance.

There are two propane tanks at the Tyee gatehouse that fuel the generator. One is empty and the other is at 5% capacity. The tanks are 1984 vintage and cannot be refilled until they have been tested which would require their removal, shipping to a testing facility down South, reinstallation and filling. Replacing the tanks with a smaller and more manageable size would be less expensive than the aforementioned process.

Project Cost Estimate Summary	Item	Cost
	Labor	$25,000
	Material	$32,500
	Helicopter	$20,000
	Design/Engineering	$1,500
	Project Mgt/Inspection	$3,000
	Total	$82,000

Project Cost Estimate Discussion: The cost of labor and helicopter could be decreased if the project can be coordinated with the gate control.

Budget Amount Requested for FY2013: $82,000

Project Responsibility:

Project Manager: Steve Henson
Design/Engineering:
Construction: Dave Gregoire/NAES
Construction Manager/Inspection: Steve Henson

Attach or include any additional information concerning this project here. This can include detailed cost estimates, pictures, drawings, etc.

SEAPA
Southeast Alaska Power Agency

FY2013
R&R PROJECT
R&R 234-13

R&R Project / Budget Approval		
Submitted By	Steve Henson	May 2012
CEO Approval	Dave Carlson	May 2012
Project Approval	SEAPA Board	06/27/12
Budget Approval FY13	SEAPA Board	06/27/12

R&R Project Contracts (Contract Description, number and award date)		

Attach Project Close-Out Summary upon completion of project:

SOUTHEAST ALASKA POWER AGENCY

DATE: April 18, 2013

TO: Trey Acteson, CEO

FROM: Steve Henson, Operations Manager

SUBJECT: 2013 Annual Substation/Switchyard Equipment Maintenance Contract

Staff advertised for bids on the 2013 Annual Substation/Switchyard Equipment Maintenance Contract for the Swan Lake Plant, Tyee Lake Plant, Wrangell Substation/Switchyard, Petersburg Substation, and Bailey Substation. Bids are due April 22, 2013. A review of proposals will be conducted by SEAPA staff. Funding of $100,000 remains in account #562300 for substation expenses.

A recommendation for a contractor chosen from responsive bidders will be given at the April 25 Board meeting. A suggested motion format is provided below which can be utilized at the board meeting in the event the board elects to award the contract.

SUGGESTED MOTION
I move to authorize staff to enter into a contract with ________________________________ for an amount not to exceed $_______________ for the 2013 Annual Substation/Switchyard Equipment Maintenance Contract for the Swan Lake Plant, Tyee Lake Plant, Wrangell Substation/Switchyard, Petersburg Substation, and Bailey Substation.

SEAPA 2013 BOARD MEETING SCHEDULE

April 25, 2013 (Thursday)	**Board Meeting at The Best Western Landing Sunny Point Ballroom in Ketchikan from 9:00-5:00 pm**
June 25-26 (Tuesday-Wednesday)	**Board Meeting in Petersburg (split meeting 1-5 pm on Tues; 9-2 pm on Wed)** (Joe Nelson will not be available for this meeting)
August 27, 2013 (Tuesday)	**Board Meeting in Ketchikan**
October 15-16, 2013 (Tuesday-Wednesday)	**Board Meeting in Wrangell (split meeting 11 am-5 pm on Tues; 9 am-2 pm on Wed)**
December 17, 2013 (Tuesday)	**Board Meeting in Ketchikan**