



Electric Utility Bond Issue

BOND ISSUE INFORMATION AND IMPACTS TO ELECTRIC RATES

Projects Needing Funding

Blind Slough Hydroelectric Refurbishment

- Renews all equipment and controls in the powerhouse.
- Extends legacy of low-cost hydro power for Petersburg customers far into the future.
- Total project cost: \$9 million.
- Bonding of \$6.3 million to complete funding of project.

Scow Bay Generation project

- Adds diesel generation capacity in order to fully meet standby demands of the community.
- Total cost estimated to be \$1.4million
- Bonding of \$980,000 to complete funding of the project.

Total Bonding Costs

Blind Slough Hydro Project
\$6.3 million

Blind Slough Debt Service reserve
\$420,000

Scow Bay Generation Project
\$980,000

Bond issuance costs
\$100,000

Total cost of Bond Issuance
\$7.8 million

Rate Study: Impacts to Electric Rates

D.Hittle and Associates performing rate study.

Inflation and increasing annual operations costs included.

Debt service on bond issue included.

Fuel Surcharge during annual SEAPA shutdowns included.

Capital project plan for smaller projects of the utility included.

Power purchases increased during Blind Slough project.

Potential SEAPA wholesale rate increase included.

Cost of Service analysis shows a reliance on Large Commercial to subsidize rates for other customer classes.

Municipal rate is heavily subsidized by other customer classes.

Currently proposed to increase revenues by 9.5% in FY22 and 9.5% in FY23.

Rate Study: Impacts to Electric Rates

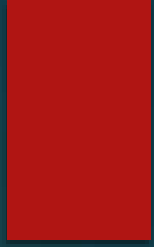
Rate Proposal											
Current				FY22				FY23			
Class	Service Fee	Usage block	Rate	Class	Service Fee	Usage Block	Rate	Class	Service Fee	Usage Block	Rate
Residential	\$9.00	0-500 kWh	\$0.119	Residential	\$10.00	0-500 kWh	\$0.123	Residential	\$11.00	0-500 kWh	\$0.126
		over 500	\$0.081			over 500	\$0.095			over 500	\$0.109
Harbor	\$9.00	0-500 kWh	\$0.118	Harbor	\$10.50	0-500 kWh	\$0.123	Harbor	\$12.00	0-500 kWh	\$0.128
		over 500	\$0.096			over 500	\$0.110			over 500	\$0.124
General	\$9.00	0-3000 kWh	\$0.110	General	\$10.50	0-3000 kWh	\$0.117	General	\$12.00	0-3000 kWh	\$0.123
		over 3000	\$0.088			over 3000	\$0.102			over 3000	\$0.116
Large Com	\$28.00	0-15000 kWh	\$0.106	Large Com	\$31.00	0-15000 kWh	\$0.115	Large Com	\$34.00	0-15000 kWh	\$0.123
		15000-60000	\$0.111			15000-60000	\$0.119			15000-60000	\$0.126
		over 60000	\$0.088			over 60000	\$0.096			over 60000	\$0.104
Demand/kW	\$3.10			Demand/kW	\$3.40			Demand/kW	\$3.70		
Municipal	\$25.00	0-15000 kWh	\$0.080	Municipal	\$27.50	0-15000 kWh	\$0.095	Municipal	\$30.00	0-15000 kWh	\$0.110
		over 15000	\$0.080			over 15000	\$0.095			over 15000	\$0.110

Rate Study: Impacts to Electrical Rates

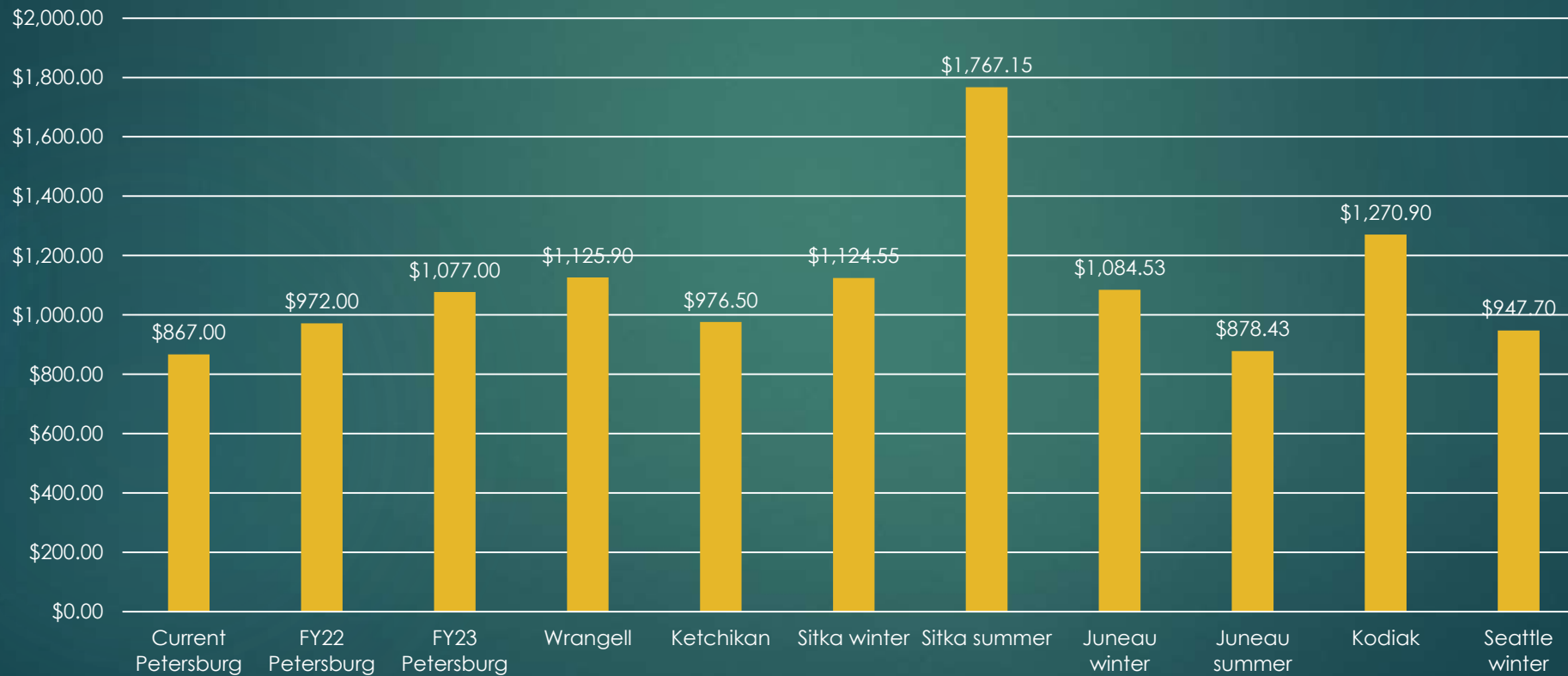
Residential Billing Comparison 3000 kwh



Rate Study: Impacts to Electric Rates

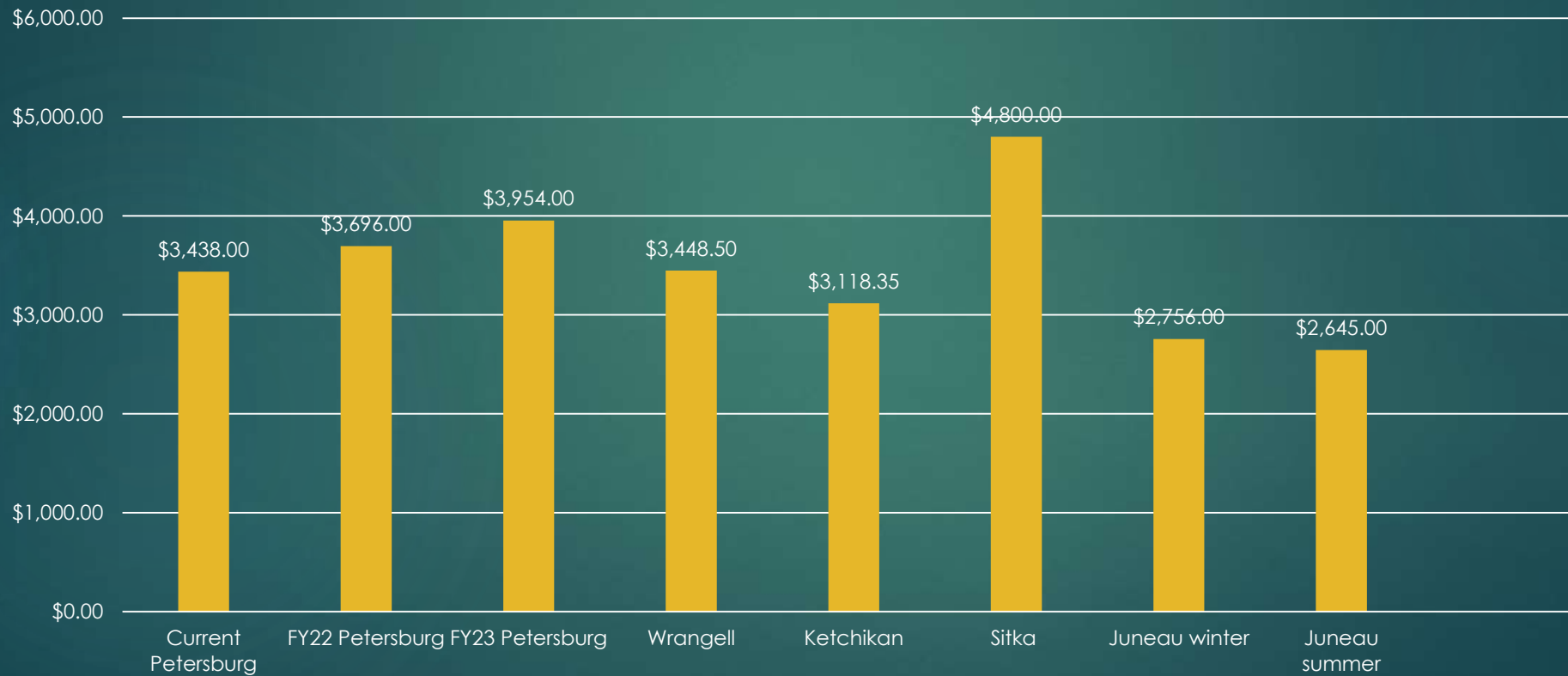


General Service Billing Comparison 9000 kwh



Rate Study: Impacts to Electric Rates

Large Commercial Comparison 30,000kwh/50kW demand



What if: No Action on Bonds

- ▶ Hypothetically, let's discuss life without Blind Slough.
- ▶ Realistically, this is not an "all or nothing" question.
- ▶ If the bonds were not approved, it would likely be a number of years and many smaller maintenance or component replacement type projects before catastrophic failure were to occur and the facility unavailable for use.
- ▶ The department would nurse the facility along and to maximize low-cost hydro power for as long as possible.
- ▶ However, increased maintenance costs would be a fact of life and increased downtime of the facility due to smaller breakdowns would impact annual expenses as well.
- ▶ The unknown remaining service life of the facility would put the department and community in limbo in regard to knowing if overall system generation capacity is truly adequate.
- ▶ Diesel generation capacity would need to be built up in order to displace Blind Slough generation at any time.

What if: No Action on Bonds

- ▶ Based on current costing information, a scenario for life without Blind Slough was developed for if the bond issue is not approved and there is no support for major updates to the facility.
- ▶ Blind Slough refurbishment is not completed.
- ▶ Blind Slough will eventually fail and can be dismantled/demolished.
- ▶ Disposition of water supply to the Crystal Lake Hatchery would need discussion and resolution.
- ▶ PMPL will budget for approximately 25% more SEAPA power purchases annually. Increasing from \$3.3 million to \$4.3 million annually.
- ▶ Fuel use of the utility, mainly used during annual SEAPA shutdowns, increases from \$165,000/yr to approximately \$263,000/yr.
- ▶ Current Blind Slough output, up to 1.7 MW, would need to be made up by diesel generation in the case of a SEAPA outage.

Costs of Power Production at Blind Slough

CASE 4B-\$7.83M Debt

	Before Upgrade 2022	Construction Period 2023 2024		After Upgrade 2025
Annual Expenses				
Hydro O&M Expense ⁽¹⁾	\$ 129,200	\$ 132,400	\$ 135,700	\$ 139,100
Allocated A&G ⁽²⁾	30,700	31,500	32,300	33,100
Subtotal	\$ 159,900	\$ 163,900	\$ 168,000	\$ 172,200
Debt Service ⁽³⁾	-	381,800	381,800	381,800
Total Annual Cost of Power (\$)	\$ 159,900	\$ 545,700	\$ 549,800	\$ 554,000
Annual Energy Generation (MWh) ⁽⁴⁾	12,000	9,000	9,000	12,000
Annual Cost of Power (cents/kWh) ⁽⁵⁾	1.3	6.1	6.1	4.6

What if: No Action on Bonds

Scow Bay Generation project becomes exceedingly important if Blind Slough is not available.

Sizing of new standby generators increases, as well as costs of the project.

Scow Bay becomes possible through use of department reserves instead of bonding, however higher rate increases are required due to higher power purchase costs, higher fuel usage and higher diesel plant maintenance needs.

Based on the hypothetical unavailability of Blind Slough, instead of a 19% increase in revenue requirements over two years, rates need to provide 23% more revenue to support the operations of the electric utility.

What if: No Action on Bonds

- ▶ If Blind Slough goes dark and is not available during a SEAPA outage, diesel generation alone is needed to provide Petersburg's electrical loads.
- ▶ Blind Slough currently produces power at approximately 1.3 cents/kwh. After the refurbishment project, this is projected to be 4.6 cents/kwh.
- ▶ From recent rate study analysis, diesel generation produces power at approximately 18.8 cents/kwh.
- ▶ For every 1,000 kwh that is provided by Blind Slough, the department offsets approximately **\$142,000** in fuel costs.

Conclusions

- ▶ Blind Slough Hydro actively reduces PMPL expenses on an annual basis and stabilizes rates in Petersburg.
- ▶ If Blind Slough is left to fail, electric rates need to increase to cover additional costs associated with increased power purchases from SEAPA, additional fuel consumption and addition of diesel generation capacity to cover the shortfall in standby generation.
- ▶ Proposed rate increases in Petersburg are still competitive with other SE Alaskan communities.
- ▶ Diesel generation is approximately 300% more costly than hydro generation from Blind Slough.
- ▶ Standby generation is vital to Petersburg, even more so if Blind Slough is not available during a SEAPA outage.
- ▶ While rate increases are never popular, critical infrastructure must be renewed from time to time in order for the community to continue to see the long-term benefits from that infrastructure.

Closing Statements

- ▶ For nearly 100 years, PMPL rate payers have reaped the benefits from the forward-looking construction of the Blind Slough Hydro project.
- ▶ It has been over 65 years since the last major upgrade, which included construction of a new powerhouse, and installation of a turbine, generator, switchgear and governor.
- ▶ The proposed new upgrade will keep the Blind Slough hydro project operational as a low-cost generation source for our community for many more years to come.

- ▶ Questions?