#### **ELECTRIC DEPARTMENT** — RATES

#### **Key Rate Issues FY18**

- Approximate 2.2M/Year NEEDED for FY18 and Forward

  Description on Providential of 12 cents/leubr to 15 cents/
- □ Rate Increase on Residential of 13 cents/kwhr to 15 cents/kwhr needed
- □ Load is the VARIABLE has leveled to 103-105 million kwhr/yr
- ☐ Range of current revenue \$13.9-14.2 m

#### **Options to Balance the Enterprise Fund**

- ☐ Property Tax Ballot Initiative REV 2 Specifically Targeted, 1 mil = \$1 m
  - √ \$1 m revenue cuts the rate increase by 50%.
- ☐ Increase Summer Sales Tax from 6% to 7% approx. \$1 m
- ☐ Continue **subsidization** by General Fund, Permanent Fund, or other.
- □ Severance Tax Fish and Gravel, \$1 m
- □ Rate Increase 15%
  - ✓ Residential rate up from 13 cents to 15 cents
  - ✓ First Tier on General Service Commercial unchanged<500 kwhrs @ 18 cents</p>
  - ✓ Monthly Fees unchanged
  - ✓ Boat Service Tier 2 matches Tier 2 Residential (11% not 15%)
  - ✓ Heat Pumps remain at ½ the cost of fuel oil to operate

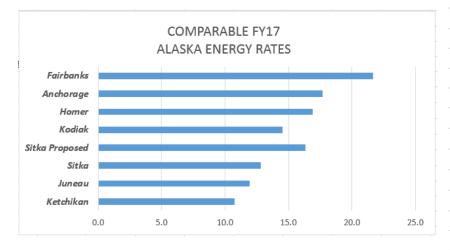
#### □ Early rate increase to help balance FY17

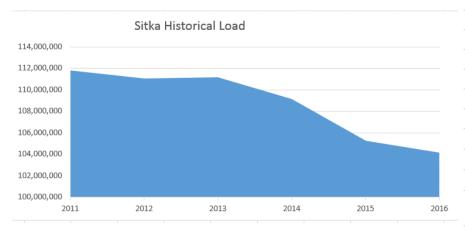
- ✓ Apr 1 FY17 \$500,000 estimated additional FY17 revenue
- ✓ Early Guess of approx. \$589,000 needed
- Range of \$200,000 to \$1.2 m



60,000 FT VIEW of ELECTRIC RATES		
Current Elect Rate (Approx)	14	cents
Proposed Elect Rate (Approx, 15%)	16	cents
Approximate Total Annual Revenue	14.7	million \$
Shortfall \$/yr	2.2	million \$
15% Rate Increase Generates \$	2.2	million \$
Fish Processing accounts for \$/yr	2.0	million \$
Total Citizens	8929	
Total Households	4566	
Need to collect per Citizen	209	\$/yr
or Need to collect per Household	410	\$/yr
or Need to collect from Fish Processing	300,000	\$/yr
If you do not raise large Commercial		
Need to collect per Citizen	246	\$/yr
or Need to collect per Household	482	\$/yr
or Need to collect from Fish Processing	0	\$/yr
Seasonal Rates		
Proposed w/o seasonal	16	cents
Summer	21	cents
Winter	11	cents







ELECTRIC ENTERPRISE FUND FY18		
RATE CALCULATOR		
INPUTS YOU CAN CHANGE		
% Change in FY18 Load (-5% to 5%)	-19	
% Change in FY18 Elect Rates	15.09	
Months of Changed Rate in FY18	1009	
Funds from OTHER \$	0	
Funds from Rate Stabilization Acct	0	
% Reduction in non-labor expense	49	
CALCULATIONS and FIXED #		
Original Elect Rate \$/kwhr	0.1423	
Adjusted Elect Rate \$/kwhr	0.1636	
Original KWHrs Sold -	104,156,400	
Adjusted KWHrs Sold -	103,114,836	
Calculated Electric Revenue (Sales)	16,872,330	
Other Revenue (fixed, Federal)	550,394	
Funds from "Other" and Rate Stabiliz	0	
Operations Costs Labor (fixed)	(4,200,000	
Adjusted Operations Costs, Non Labor	(4,119,400	
Interest and Principal on Loan (AEA)	(614,076	
Interest on Bonds(fixed)	(7,913,517	
Interest on Bonds net of Fed Revenue	(7,363,123	
Bond 25% adder	(1,840,781	
OVERALL Revenue Requirement	(16,909,228	
REQUIRED TARGET IS ZERO	(36,898)	
FOR BOND COVENENT AND CAPITAL PLAN	N	

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#### **RESIDENTIAL CUSTOMERS**

RESIDENTIAL	Before	After	Proposed
	Oct-2016	Oct-2016	Apr-2017
First 200 kwhrs	0.0858	0.1203	0.1383
Next 800 kwhrs	0.1145	0.1203	0.1383
Over 1000 kwhrs	0.1305	0.137	0.1576
Customer Charge	19.5	20.48	20.48
Typical Residential Monthly kwhrs	\$/mo	\$/mo	\$/mo
1500	\$194	\$209	\$238
2000	\$259	\$278	\$316
Incremental %		7.4%	13.9%
Total % Net Increase from 10/2016			22.3%
	\$/yr	\$/yr	\$/yr
1500	\$2,322	\$2,511	\$2,851
2000	\$3,105	\$3,333	\$3,797



#### **SMALL COMMERCIAL CUSTOMERS**

SMALL COMMERCIAL	Before	After	Proposed
	Oct-2016	Oct-2016	Apr-2017
First 500 kwhrs	0.1771	0.186	0.186
Next 500-10000 kwhrs	0.1246	0.1308	0.1504
10,000-100,000	0.1218	0.1279	0.1471
Over 100,000 kwhrs	0.119	0.125	0.1438
Customer Charge	39	40.95	40.95
Typical Commercial Monthly kwhrs	\$/mo	\$/mo	\$/mo
5000	\$688	\$723	\$811
20000	\$2,529	\$2,656	\$3,034
Incremental %		5.0%	14.2%
Total % Net Increase from 10/2016			19.9%
	\$/yr	\$/yr	\$/yr
5000	\$8,259	\$8,671	\$9,729
20000	\$30,351	\$31,867	\$36,405



#### LARGE COMMERCIAL CUSTOMERS

LARGE COMMERCIAL	Before	After	Proposed
	Oct-2016	Oct-2016	Apr-2017
First 500 kwhrs	0.1771	0.186	0.186
Next 500-10000 kwhrs	0.1241	0.1303	0.1498
10,000-100,000	0.1213	0.1274	0.1465
Over 100,000 kwhrs	0.1184	0.1244	0.1431
Customer Charge	60	63	63
Typical Commercial Monthly kwhrs	\$/mo	\$/mo	\$/mo
100000	\$12,245	\$12,860	\$14,764
150000	\$18,165	\$19,080	\$21,919
Incremental %		5.0%	14.9%
Total % Net Increase from 10/2016			20.7%
	\$/yr	\$/yr	\$/yr
100000	\$146,934	\$154,318	\$177,169
150000	\$217,974	\$228,958	\$263,029



# BOAT SERVICE — Note monthly charge increased to repair harbor meters\_\$8.75 to \$20.48

Before	After	Proposed
Oct-2016	Oct-2016	Apr-2017
0.1353	0.142	0.142
0.1353	0.142	0.1576
8.75	20.48	20.48
\$/mo	\$/mo	\$/mo
\$29	\$42	\$42
\$49	\$63	\$65
	27.8%	3.7%
		32.6%
\$/yr	\$/yr	\$/yr
\$349	\$501	\$501
\$592	\$757	\$785
	0.1353 0.1353 8.75 \$/mo \$29 \$49 \$/yr \$349	Oct-2016         Oct-2016           0.1353         0.142           0.1353         0.142           8.75         20.48           \$/mo         \$/mo           \$29         \$42           \$49         \$63           27.8%           \$/yr         \$/yr           \$349         \$501



## **QUESTIONS**



### Operating a Heat Pump is ½ the Cost of Fuel oil @ 16 cent Electricity

HEAT PUMP versus FUEL OIL		
FUEL OIL	Value	Units
Fuel Oil Heating Value	130,000	btu/gal
Modern Fuel Oil Stove Efficiency	85%	%
Price of Fuel #1 Delivered	2.7	\$/gal
CALCULATED	110,500	btu/gal
CALCULATED	40,926	btu/\$
HEAT PUMP	Value	Units
HSPF (typical Sitka, Fujitsu RLS3)	12.5	
Efficiency	12,500	btu/kw
Cost of Power	0.16	\$/kwhr
CACLULATED	78,125	btu/\$
HEAT PUMP IS	0.523852	
THE COST OF FUEL OIL		