

MEMORANDUM

Date: November 20, 2015

To: Board of Directors

From: Foster Hildreth, General Manager

Re: Approved 2016 Budget

The Board of Directors held an all-day work session Thursday, November 19 to review and discuss both the OPALCO and the Rock Island Communications 2016 budgets. As discussed during the Board work session, changes were made to the 2016 OPALCO budget that was presented as follows:

- 1) The Energy Assistance Program amount dropped to half of that presented (from \$180k to \$90k). Due to program start-up unknowns it was determined that staff will bring back actual program results for discussion & potential program adjustments as the year progresses.
- 2) Capital projects timing and amounts were discussed at length. Based on the discussion, the board approved the capital projects budget as presented.
- 3) 2015 projected borrowings were reduced by \$350k representing the 50% reduction in the general retirement of 1990 margin capital credit payout.

Attached, please find our 2016 Budget Presentation. Note that staff recommended the figures associated with the 2016 budget year only. The projected figures for years 2017 thru 2020 are for reference only, as future years will be reviewed annually during our normal budgeting process.

The 2016 Budget is designed to trim discretionary expenses while maintaining our service levels. As we all know, providing safe, reliable, cost effective power to our relatively small island community is challenging on both operational and financial fronts. A budget narrative is provided detailing the basis, assumptions and notable drivers.

The number one driver of this budget is to maintain electric power delivery to meet the needs of our membership. Our secondary mission is to prepare for the future, making prudent use of member resources and making smart decisions today to position our Co-op for a sustainable and efficient tomorrow.

Staff is recommending that our 2016 budget revenue increase from \$23.3M (projected 2015) to \$24.8M to meet our financial and operational commitments, which represents an approximate 5% increase to rates. The Board motioned and approved the presented budget at the 11/20/15 board meeting after review and discussion at the 11/19/15 work session. Board recommended revisions to the budget as discussed above are presented within.

ORCAS POWER & LIGHT COOPERATIVE

2016 Budget



Preparing the 20" conduit for the Lopez - San Juan
Island submarine cable replacement (October 2015)



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BUDGET NARRATIVE

Mission:

The 2016 budget is driven by our mission to maintain electric power delivery to meet the needs of our membership, including and especially our essential submarine cable connections to the mainland. Our secondary mission is to prepare for the future, making prudent use of member resources and making smart decisions today to position our Co-op for a sustainable and efficient tomorrow.

Bigger Picture:

Our largest asset is our dedicated and hardworking team of qualified crew, staff and Board members. Our dedicated team works tirelessly to maintain and enhance one of the most complex electric utility distribution systems in the nation, and within one of the most challenging island oriented service territories in the world.

The long-term key to manage our costs by using technology to our advantage. As we prepare this budget, OPALCO (and our subsidiary Rock Island Communications) is deploying fiber to the farthest reaches of our 20-island community. This historic initiative is reminiscent of the founding of OPALCO in 1937, when a handful of farmers and entrepreneurs envisioned an electric future.

This marriage of energy and communications lays a compelling foundation that enables co-op members to make a better living through internet-enabled businesses that lift us up beyond the confines of a tourist economy. It enables better communication in neglected parts of the County for emergency first responders, unlimited access for education, advances in rural tele-medicine delivery, and prepares us for the smart homes of the not-so distant future.

In the coming decades, as local renewable energy and electric vehicles proliferate, they will be interconnected by this internet-enabled grid that delivers affordable, efficient and reliable energy and fosters a vibrant energy sharing market. The co-op grid is becoming more local and distributed and, in time, will comprise a mix of solar, wind, tidal and biomass generators. These intermittent sources must be firmed up with hydropower from the mainland and a mix of grid and member storage systems, all tied together via the grid.

More than 75% of the county's carbon footprint comes from fossil fuels used for transportation and heating. Co-op members will benefit from the cleaner lower operating cost of electricity as they transition to electric heat pumps and electric vehicles to meet their heating and transportation needs. This has the added benefit of improving the efficiency of the grid, getting more out of that fixed-cost investment, thus keeping the per-member-cost of the grid lower.

OPALCO's low-cost, clean hydro-based energy will continue to be essential for firming intermittent resources such as solar, wind and tidal maintaining a low cost, reliable and safe grid. This is due to a co-op team that maintains a well-managed network of submarine and underground cables that feeds our 70 MW thirst for energy – on demand, rain or shine, summer and winter.

Recognizing that we are all in this together and that living in the islands has added cost, OPALCO will continue to innovate assistance and conservation programs that help those in need, that's the co-op way.

Current Outlook:

- **Revenue Challenges Continue** – OPALCO’s energy sales will continue to be lower due to abnormal weather conditions and successful energy efficiency and conservation programs. Warmer temperatures are driving this decrease, which is forecast to continue into late 2016. Year-end kWh sales projections for 2015 were adjusted down from 200M (Q1) to 187M (Q3). The 2016 Budget forecasts annual kWh sales of 187M, based on all available data. The temporary Revenue Recovery Add-On successfully kept us on course for 2015. While discontinued for the foreseeable future, this decoupling tool can be utilized again in 2016 if another unexpected revenue shortfall (or gain) develops.
- **Submarine Cable Replacement** – Construction has begun on the Lopez – San Juan Island submarine cable replacement project. The first phase of boring and site work was completed in Q4 2015. The cable purchase spans 2015-2016. Site work continues in 2016 and the cable will be installed in 2017. The impact on rates is significant and steady for 2016 and 2017. Once the project is complete, interest payments and depreciation of the asset will put additional pressure on TIER and rates beginning in 2018.
- **BPA Conservation Funding** – OPALCO’s biennial allotment of BPA Conservation Funds is expected to run out in Q2 2016. The previous allotment of BPA rebate funds was spent down by December 31, 2014; rebates since then have been paid out to members while their paperwork was held for submission to BPA for reimbursement in October 2015 when BPA’s new rate period began. That bulk submission in October spent down approximately a third of funds allotted for the current two-year period. Energy Savings staff will prioritize residential measures to maximize the remaining BPA funds for this rate period (2016-17). In addition, staff will continue to look for opportunities and other funding sources such as grants and utilizing the BPA funds allotted to other co-ops who aren’t able to use them, as we have done in the past.
- **Energy Savings** – Energy efficiency, conservation and renewable energy continue to be highly valued programs in keeping with our mission as an organization and carbon reduction on a global scale. We surveyed our membership about how to fund energy efficiency and conservation during this two-year interim without BPA funding. More than 80% of members surveyed prefer that OPALCO put rebate programs on hold until BPA funding is available again. The majority of members surveyed do not want to self-fund these programs through rates, but are in favor of programs that are voluntarily funded directly by member donations, like MORE and PAL.
- **Addressing Affordability for Low-Income Members** – OPALCO led a county-wide Low Income Needs Assessment and found that 1,500 of our 11,200 members fall below 150% of the Federal Poverty Guidelines. Energy costs were determined to represent less than 10% of low-income household budgets. OPALCO is committed to doing its part and setting an example for other county agencies by creating an Energy Assistance Program in 2016 to improve affordability for our most vulnerable members, in addition to maintaining Project PAL. See Assumptions for more detail.

Load Forecast:

The Load Forecast is the heart of the budget. OPALCO’s load peaks in the winter, as co-op members heat their homes and businesses. Weather drives heating load. Predicting the weather is fraught with uncertainty. The past winter was but one example. No one predicted just how warm it would be. As noted Northwest climatologist Cliff Mass observed “*Last year was just crazy - completely anomalous.*”

While predicting the weather beyond a few days or weeks with any certainty is not possible, we can use trends to forecast likely scenarios. Weather drives load, which drives how many kWh of energy co-op members consume, which drives how much revenue the Co-op generates to pay for expenses. Most of OPALCO’s expenses are fixed costs. Most of OPALCO’s revenue is highly variable and dependent on the weather.

To accurately gauge what the weather portends, we meet with and integrate forecasts from BPA’s climatologist, the National Oceanic and Atmospheric Administration (NOAA), the Office of the Washington State Climatologist, and Northwest climatologists such as Cliff Mass. We also consider local weather data, including air temperature, water temperature, wind speed, and precipitation, to name but a few.

After considering about a dozen scenarios, we then estimate our kWh load. With that information we set rates accordingly – to generate the revenue to pay for the expenses. An accurate forecast is important – If it ends up being colder than we forecast, members are over-charged and we end up with more money than needed to cover co-op expenses, if weather was warmer than forecast, members are under-charged and we end up with less money than needed to cover co-op expenses.

Though there has been some growth in number of members, it is balanced by the combination of increased local renewable energy generation, warming weather and OPALCO’s very successful energy efficiency programs. Thus, since 2013 we have seen a decline in load, and a consequent decline in revenue.

The coming winter is influenced largely by a global pattern known as El Niño. Cliff Mass said “This a very powerful El Niño, one of the most powerful in the last 50 years. I don’t think it will be as warm as last year, but a few degrees Centigrade above normal is something you can probably bet on 202M”

The table below shows Heating Degree Days (HDD) and purchased kWh from 2010 through 2015, and forecasts for 2016 through 2020. The 2016 **Budget Forecast** assumes a Heating Degree Day (HDD) and kWh load similar to 2015. This is conservative. **Nominal** and **BPA Forecasts** are higher. The **Nominal Forecast** is similar to 2014. The **BPA Forecast** is based on 20-year long-term averages, and doesn’t take near-term weather conditions such as El Niño into account. We are in a strong El Niño warming pattern, and this winter is forecast to be 2 to 3 degrees Celsius warmer than normal (lower HDD and kWh usage). Typically, an El Niño cycle is followed by several years of La Niña cooling cycle. Hence the higher HDD and kWh forecast in 2017 through 2020. The actual end of El Niño and onset of La Niña is uncertain. Though forecasts are for a very warm early 2016, climatologists are unable to say what late 2016 will bring. When the La Niña comes, the transition tends to be quick. This timing uncertainty explains the gap between the **Nominal** and **Budget Forecasts**

	2010	2011	2012	2013	2014	2015 Predicted	2016 Budget Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	2016 Nominal	2016 BPA
HDD	1,178	1,552	1,331	1,620	1,281	1,061	1,051	1,407	1,381	1,381	1,381	1,281	1,661
kWh Purchased	205,351,474	219,050,126	214,865,077	217,913,854	212,349,941	202,438,050	200,135,050	216,072,953	212,134,673	212,134,673	212,134,673	211,446,050	216,793,070

BUDGET ASSUMPTIONS

GENERAL:

1. Approach:

Staff is recommending approval of the 2016 budget, along with forecasting for budget years 2017, 2018, 2019, and 2020.

2. General Inflation Rate:

The general annual inflation rate has been projected at 3% for years 2016 through 2018 and 4% for years 2019 and 2020.

3. 2016-20 Budget Basis:

The 2016-20 budgetary figures have been forecast with the use of actual activity from January through September 2015 and adjusted 4th quarter 2014 actuals.

4. BPA Power Cost Projections:

- 2016 is midterm for the two-year rate cycle; no rate increase for power sales in 2016.
- We predict our power costs to drop by 2%, expecting lower demand charges because of warmer temperatures.

5. Labor:

- Staffing levels have stabilized at 51 full-time OPALCO employees in 2016 (see organization chart) after several shifts in positions due to retirements and promotions. We do not expect any additional FTEs through 2020.
- The general wage increase is in accordance with the current Collective Bargaining Agreement, which is based on the CPI index (2% in 2016, forecast at 3% in 2017 and 2018, and forecast at 4% for 2019 and 2020).
- The benefit growth assumptions are in accordance with 2016 NRECA and LineCo rate projections based on the changes to the benefits package.

6. Capital Projects:

- The 2016 capital projects are based on the board approved RUS Construction Work Plan (CWP). The CWP is derived from outage analysis, system monitoring and system modeling based on load growth projections along with current system loading. The goals are to achieve voltage stability, greater system reliability and overall system efficiency.
- In 2016, staff will be creating our new Long Range Plan and related Construction Work Plan for 2017-2020.
- Underground distribution replacement will be scheduled with the following criteria: age, cable type, neutral degradation and outage frequency. There is \$2.285M budgeted for undergrounding in 2016.
- Submarine Cable Replacement Project: we spent \$4.4M in 2015; there is \$3M budgeted 2016 with the major capital outlay \$7.4M planned in 2017. The balance will be spent in 2018 (\$200k).
- Grid Control Communications Infrastructure: \$2.4M is budgeted for 2016; \$730k is budgeted in 2017.

7. Energy Savings:

- Energy Savings staff will continue education and outreach efforts and support the energy efficiency and conservation work of the Conservation District.
- Staff will support and pursue voluntarily funded programs such as MORE and Community Solar as much as members are willing to fund them.
- Staff will encourage Residential energy efficiency measures for as long as funding is available, as well as pursue additional funding through grants and un-used BPA Conservation Allotments from other utilities.
- Snapshot Audits are budgeted in 2016.

8. Energy Assistance Program (new):

- The 2016 Budget includes \$90k to fund this new program, which would provide a \$10 monthly facility charge credit (assuming a 50% take rate: 750 members x \$10 x 12 months). The Energy Assistance Program would appear as a line item on all member bills (approximately \$0.45 on the average residential bill). Actual awards will be based on income and household size, to be determined upon Board approval of the program.

9. Community Solar:

- The 2016 Budget includes staff time for development and preparation for future Community Solar projects. Staff activities in 2016 will include exploring site, design and loan funding possibilities.

OVERALL SUMMARIZATION:

1. Margins:

Per Staff recommendation, projected margins are as follows: \$1.2M in 2015 (projected), \$2.0M in 2016 (budget), \$2.8M in 2017 (forecast), \$1.9M in 2018 (forecast), \$2.5M in 2019, and \$3.2M in 2020.

2. TIER:

Per Staff recommendation, TIER is as follows: 1.95 in 2015 (projected), 2.20 in 2016 (budget), 2.54 in 2017 (forecast), 2.07 in 2018 (forecast) 2.40 in 2019, and 2.91 in 2020.

3. Equity % of Total Capitalization:

Per Staff recommendation, Equity % of Total Capitalization is as follows: 51.6% in 2015 (projected), 45.6% in 2016 (budget), 46.0% in 2017 (forecast), 47.8% in 2018 (forecast). 50.2% in 2019, and 52.9% in 2020.

4. Debt:

OPALCO is expected to borrow \$10.6M RUS and \$2.6M CFC (on behalf of RIC) in 2016, \$3.8M RUS with a \$7.5M RIC loan repayment in 2017, \$0 RUS in years 2018 through 2020. All OPALCO RUS borrowing and the repayment of the RIC loan will be to supplement the funding of capital projects. We anticipate using our approved RUS (FFB) loan funds and have estimated interest rates of 3% for 2016 through 2020. The CFC loan that OPALCO will draw on behalf of RIC has an estimated interest rate of 4.05% for all budget and forecast years. The OPALCO budgetary figures do not include interest rate hedging in future years. RIC will receive as a loan from OPALCO \$2.6M in 2016, \$0 in 2017 through 2020. For the forecasted years of 2018 through 2020, RIC will self-fund working capital and capital projects. The estimated interest rate for the CFC and OPALCO cash loans is at the rate of 4.05% for all budget and forecast years.

5. Rates:

- Staff recommends a rate increase of 5% for 2016. The rate increase applies to both the facility and energy usage charges. The chart below details the impact on average residential members, PAL recipients and seasonal members. An average residential member (12,600 meters) would see a bill increase of about \$5.84 including the Energy Assistance Program.

	Average Residential User	Average PAL Recipients ³	Average Seasonal Occupancy ²
Number of Services (Meter Points)	12,600	280	3,000
Average Months of Usage	12	12	12
Average Usage (kWh) per month	904	971	726
Average Monthly Bill using Existing Rate (2015)	116.19	121.92	100.97
Average Monthly Bill using Recommended Rate (2016)	121.63	127.64	105.66
Percentage Increase ⁴	5%	5%	5%

Notes:
1) Data period from November 2014 to October 2015.
2) Seasonal occupancy based on greater usage in May through September than rest of the year.
3) PAL accounts based on those in database who received assistance during data period.
4) Board approved budget adjusted percentage rate increase for average user is ~4.7%.

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STATEMENT OF OPERATIONS - BOARD APPROVED NOVEMBER 20th

	A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.
	Audited	Audited	Audited	Approved	Projected	Approved	% Change	Forecast	Forecast	Forecast	Forecast
	Year End	Year End	Year End	Budget	Year End	Budget	% Change	Forecast	Forecast	Forecast	Forecast
	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2015	12/31/2016	(F - E)	12/31/2017	12/31/2018	12/31/2019	12/31/2020
1 OPERATING REVENUES											
2 kWh Sales	195,165,575	206,560,734	198,231,749	200,137,871	187,756,842	187,272,362		203,713,000	200,000,000	200,000,000	200,000,000
3 % Rate Increase						5%		5%	6%	6%	6%
4 % Revenue Increase	-4%	5%	3%	12%	6%	7%		12%	5%	6%	6%
5 Residential	\$ 14,861,010	\$ 15,598,797	\$ 15,913,325	\$ 17,714,009	\$ 16,629,365	\$ 18,108,001	9%	\$ 19,980,710	\$ 20,982,311	\$ 22,240,175	\$ 23,573,510
6 Commercial	5,260,451	5,467,588	5,694,901	6,523,281	6,240,517	6,591,872	6%	7,703,315	8,064,691	8,545,892	9,055,965
7 Other	296,764	364,892	420,798	459,851	443,861	223,282	-50%	223,282	223,282	223,282	223,282
8 Energy assistance Program		-	-	-	-	(90,000)		(200,000)	(210,000)	(222,000)	(236,000)
9 Total operating revenue	20,418,225	21,431,278	22,029,025	24,697,141	23,313,742	24,833,155	7%	27,707,306	29,060,284	30,787,349	32,616,757
10											
11 OPERATING EXPENSES											
12 Cost of power	7,240,696	7,514,128	8,037,428	8,452,880	7,773,666	7,624,980	-2%	8,464,743	8,744,234	9,096,649	9,336,691
13 Transmission	126,986	70,117	92,874	95,459	47,403	53,560	13%	55,989	57,880	60,788	63,866
14 Distribution - operations	2,805,586	2,968,003	2,961,250	3,462,037	3,295,572	3,420,263	4%	3,557,139	3,957,345	4,182,717	4,439,523
15 Distribution - maintenance	1,518,742	1,669,524	1,778,516	1,862,557	1,592,004	1,702,147	7%	1,775,851	1,836,799	1,928,146	2,024,754
16 Consumer accounts	809,149	853,211	898,198	1,000,006	897,838	930,975	4%	995,953	1,034,897	1,093,752	1,156,532
17											
18 General and administration											
19 Administration G&A	2,799,833	2,718,889	2,822,439	3,060,993	2,932,543	3,058,886	4%	3,262,950	3,579,935	3,786,444	3,985,173
20 Energy services G&A	276,269	462,966	373,323	743,548	585,467	410,376	-30%	445,666	480,293	514,774	551,108
21 Total general and administration	3,076,102	3,181,855	3,195,763	3,804,540	3,518,010	3,469,263	-1%	3,708,616	4,060,228	4,301,218	4,536,282
22											
23 Depreciation and amortization	2,652,194	2,719,560	2,975,650	3,166,399	3,302,408	3,673,019	11%	3,992,586	4,624,829	4,828,639	5,015,474
24 Taxes	832,220	930,482	961,815	1,038,446	961,047	1,028,086	7%	1,137,314	1,198,097	1,271,198	1,348,393
25											
26 Total operating expenses	19,061,677	19,906,881	20,901,493	22,882,324	21,387,947	21,902,293	2%	23,688,191	25,514,309	26,763,105	27,921,514
27											
28 Operating margins before fixed charges	1,356,548	1,524,397	1,127,532	1,814,817	1,925,795	2,930,863	52%	4,019,115	3,545,975	4,024,244	4,695,243
29											
30 FIXED CHARGES											
31 Interest on long-term debt	759,686	786,193	908,934	1,003,025	991,281	1,360,588	37%	1,392,468	1,764,774	1,706,481	1,634,641
32 Other Interest	-	-	-	-	-	-		-	-	-	-
33											
34 Total fixed charges	759,686	786,193	908,934	1,003,025	991,281	1,360,588	37%	1,392,468	1,764,774	1,706,481	1,634,641
35											
36 Operating margins after fixed charges	596,861	738,204	218,598	811,792	934,514	1,570,274	68%	2,626,647	1,781,202	2,317,762	3,060,602
37											
38 PATRONAGE CAPITAL CREDITS	40,416	38,048	67,853	56,472	56,051	56,051	0%	57,732	59,464	61,843	64,317
39											
40 Net operating margins	637,277	776,252	286,451	868,265	990,565	1,626,325	64%	2,684,379	1,840,666	2,379,605	3,124,919
41											
42 NON-OPERATING MARGINS											
43 Interest income	32,228	33,261	32,130	208,165	152,289	332,289	118%	108,157	79,050	55,276	36,552
44 Other income	21,995	46,893	23,458	21,933	13,619	20,381	50%	20,683	21,295	22,135	23,008
45 Fiber Optics Division	123,024	115,111	(220,088)	-	-	-		-	-	-	-
46											
47 Net non-operating margins	177,246	195,265	(164,500)	230,098	165,908	352,670	113%	128,840	100,345	77,411	59,560
48											
49 NET MARGINS	\$ 814,524	\$ 971,518	\$ 121,951	\$ 1,098,363	\$ 1,156,473	\$ 1,978,996	71%	\$ 2,813,219	\$ 1,941,011	\$ 2,457,017	\$ 3,184,479
50											
51 OPALCO TIER	2.07	2.24	1.13	1.92	1.95	2.20	13%	2.54	2.07	2.40	2.91
52 OPALCO Equity % of Total Cap	72.1%	69.5%	61.3%	52.7%	51.6%	45.6%	-12%	46.0%	47.8%	50.2%	52.9%

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NOTABLE DRIVERS - BOARD APPROVED NOVEMBER 20th

Annual Comparison with Approved Budget		A. Audited Year End 12/31/2014	B. Approved Budget 12/31/2015	C. Projected Year End 12/31/2015	D. Approved Budget 12/31/2016	E. % Change (F / C)	F. Increase/Decrease Over Projected (D - C) 12/31/2015	G. Forecast 12/31/2017	H. Forecast 12/31/2018	I. Forecast 12/31/2019	J. Forecast 12/31/2020	J. Comments
1	% Rate Increase				5%			5%	6%	6%	6%	
2	% Revenue Increase	3%	12%	5.8%	7%			12%	5%	6%	6%	
3	Revenue	\$ 22,029,025	\$ 24,697,141	\$ 23,313,742	\$ 24,833,155	7%	\$ 1,519,413	\$ 27,707,306	\$ 29,060,284	\$ 30,787,349	\$ 32,616,757	As recommended on the Rate Sensitivity sheet.
4	Expenses											
5	BPA power cost	8,037,428	8,452,880	7,773,666	7,624,980	-2%	(148,685)	8,464,743	8,744,234	9,096,649	9,336,691	Less power sales coupled with reduced demand charges.
6	Depreciation Expense	2,975,650	3,166,399	3,302,408	3,673,019	11%	370,611	3,992,586		4,828,639	5,015,474	Increasing level of utility plant investment.
7	Distribution								4,624,829			
8	Maintenance	1,778,516	1,862,557	1,592,004	1,702,147	7%	110,143	1,775,851	1,836,799	1,928,146	2,024,754	Right of way clearing and underground maintenance.
9	Station Expenses	75,808	78,610	108,337	87,260	-19%	(21,077)	88,921	91,962	96,661	101,639	
10	Communication Maintenance	343,968	472,946	394,443	455,073	15%	60,630	476,259	604,491	637,296	672,189	
11	Misc. Engineering Expenses	75,456	285,803	99,563	166,107	67%	66,544	149,022	137,300	145,550	154,419	Increasing efforts in planning and training costs
12	Consumer Accounts	898,198	1,000,006	897,838	930,975	4%	33,137	995,953	1,034,897	1,093,752	1,156,532	
13	General & Administration	2,312,783	1,904,375	1,858,369	2,036,006	10%	177,637	2,136,824	2,217,534	2,349,103	2,489,855	Full staffing: head accountant vacancy filled & budgeted addition of communications specialist.
14	Member Communications	162,272	214,271	138,915	144,706	4%	5,791	149,139	153,764	160,285	167,101	
15	Dues and Subscriptions	83,954	91,917	89,801	102,495	14%	12,694	178,007	385,661	401,087	417,131	PNGC membership in future years.
16	Software Licence Expenses	85,170	93,548	124,186	127,912	3%	3,726	131,749	135,702	141,130	146,775	
17	Director Fees & Expenses	161,251	175,615	107,935	121,173	12%	13,238	124,808	128,552	133,694	139,042	Assumes current medical plan costs
18	Proprerty & Damage Insurance	143,877	158,110	150,686	160,206	6%	9,521	165,012	169,963	176,761	183,832	
19	Legal	90,303	165,799	113,058	86,176	-24%	(26,881)	88,762	91,424	95,081	98,885	
20	General Plant Maintenance	21,150	134,629	145,055	119,537	-18%	(25,518)	123,153	126,876	132,024	137,384	
21	Outside Services	103,719	122,728	204,539	160,675	-21%	(43,864)	165,495	170,460	197,278	205,169	
22	Energy Savings											
23	BPA EEI funding	(346,603)	(393,270)	(283,937)	(292,455)	3%	(8,518)	(281,228)	(279,665)	(280,852)	(282,086)	
24	Energy Programs	719,926	1,136,818	869,404	702,831	-19%	(166,573)	726,894	759,958	795,626	833,194	
25	All Other Accounts	3,178,667	3,758,582	3,701,679	3,793,470	2%	91,791	4,036,241	4,379,568	4,635,197	4,923,534	Normal inflation factor.
26	Total Operating Expenses	\$ 20,901,493	\$ 22,882,324	\$ 21,387,947	\$ 21,902,293	2%	\$ 514,345	\$ 23,688,191	\$ 25,514,309	\$ 26,763,105	\$ 27,921,514	
27	Fixed Charges											
28	Interest Expense	908,934	1,003,025	991,281	1,360,588	37%	369,307	1,392,468	1,764,774	1,706,481	1,634,641	Increase in RUS & CFC loans required for capital projects. Partially offset by RIC interest income (row 25).
29	Patronage Capital Credits											
30	Other CC & Pat Cap Allocation	67,853	56,472	56,051	56,051	0%	-	57,732	59,464	61,843	64,317	
31	Non-Operating Margins											
32	Island Network	(220,088)	-	-	-		-	-	-	-	-	New entity, Rock Island Communications, accounted for as a separate subsidiary.
33	Interest Income	32,130	208,165	152,289	332,289	118%	180,000	108,157	79,050	55,276	36,552	RIC payment of CFC interest (pass thru). Offset to interest expense above (row 20)
34	Other Income	23,458	21,933	13,619	20,381	50%	6,762	20,683	21,295	22,135	23,008	
35	Total Net Non-Operating Margins	\$ (164,500)	\$ 230,098	\$ 165,908	\$ 352,670	113%	\$ 186,762	\$ 128,840	\$ 100,345	\$ 77,411	\$ 59,560	
36	Net Margin	\$ 121,951	\$ 1,098,363	\$ 1,156,473	\$ 1,978,996	71%	822,523	\$ 2,813,219	\$ 1,941,011	\$ 2,457,017	\$ 3,184,479	
37												
38	OPALCO TIER	1.13	1.92	1.95	2.20			2.54	2.07	2.40	2.91	
39	OPALCO Equity % of Total Cap	61.3%	52.7%	51.6%	45.6%			46.0%	47.8%	50.2%	52.9%	

ORCAS POWER AND LIGHT COOPERATIVE

RATE SENSITIVITY

Proposed 2016 Budget Figures; Future Years for Reference Only

	A.	B.	C.	D.	E.	F.	
	Proposed						
	Budget	Forecast	Forecast	Forecast	Forecast	Total	Comment
	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020		
0. BASE LINE: 0% increase (Not Financially Viable) - NOT REVISED FROM INITIAL PRESENTATION							
% Rate Increase	0.0%	0.0%	0.0%	0.0%	0.0%		Baseline only to see the implication of no rate increase.
Incremental Debt - OPALCO	\$ 13,200,000	\$ 3,985,000	\$ 4,200,000	\$ 5,000,000	\$ 6,900,000	\$ 33,300,000	
Margin	\$ 827,442	\$ 340,728	\$ (2,147,314)	\$ (3,290,717)	\$ (4,321,033)	\$ (8,590,894)	
Equity % of Total Capital	44.5%	43.3%	42.3%	42.7%	42.5%		
TIER	1.50	1.19	(0.17)	(0.87)	(1.57)		
Incremental Cash flow	\$ 2,456,000	\$ -	\$ -	\$ -	\$ -	\$ 2,456,000	
1. OPTION : DRIVE REVENUE TIER of 2 - NOT REVISED FROM INITIAL PRESENTATION							
% Rate Increase	3.7%	0.0%	12.9%	3.9%	3.3%		Management strives to reach financial targets with a minimum "2" TIER level. Achieving a TIER of exactly "2" produces volatile rate fluctuations.
Incremental Debt	\$ 13,200,000	\$ 3,800,000	\$ 180,000	\$ -	\$ 900,000	\$ 18,100,000	
Margin	\$ 1,669,448	\$ 1,841,120	\$ 1,833,519	\$ 1,766,186	\$ 1,682,921	\$ 8,793,193	
Equity % of Total Capital	45.2%	44.9%	46.4%	48.1%	49.0%		
TIER	2.00	2.00	2.00	2.00	2.00		
Incremental Cash flow	\$ 3,298,000	\$ 1,315,000	\$ -	\$ 54,000	\$ -	\$ 4,667,000	
2. OPTION : 44444 (Not Financially Viable) - NOT REVISED FROM INITIAL PRESENTATION							
% Rate Increase	4.0%	4.0%	4.0%	4.0%	4.0%		Not financially viable as TIER drops below the recommended level of "2".
Incremental Debt	\$ 13,200,000	\$ 3,800,000	\$ 1,200,000	\$ 1,000,000	\$ 1,750,000	\$ 21,000,000	
Margin	\$ 1,744,729	\$ 2,314,080	\$ 836,381	\$ 755,348	\$ 830,216	\$ 6,480,753	
Equity % of Total Capital	45.3%	45.3%	45.7%	46.8%	47.4%		
TIER	2.05	2.26	1.46	1.43	1.49		
Incremental Cash flow	\$ 3,374,000	\$ 1,788,000	\$ -	\$ -	\$ -	\$ 5,162,000	
3. OPTION: 55555 - NOT REVISED FROM INITIAL PRESENTATION							
% Rate Increase	5.0%	5.0%	5.0%	5.0%	5.0%		Equity ramping in future years is relatively flat. Recommend that OPALCO start building equity for future capital projects (next submarine cable replacement scheduled in 2030)
Incremental Debt	\$ 13,200,000	\$ 3,800,000	\$ 425,000	\$ -	\$ 350,000	\$ 17,800,000	
Margin	\$ 1,966,067	\$ 2,802,534	\$ 1,598,592	\$ 1,820,512	\$ 2,224,335	\$ 10,412,040	
Equity % of Total Capital	45.4%	45.7%	46.9%	48.7%	50.2%		
TIER	2.18	2.53	1.87	2.03	2.32		
Incremental Cash flow	\$ 3,595,000	\$ 2,277,000	\$ -	\$ 109,000	\$ -	\$ 5,981,000	
4. OPTION : 55666 - REVISED PER BOARD APPROVAL							
% Rate Increase	5.0%	5.0%	6.0%	6.0%	6.0%		Recommended rate increase as this profile allows for revenue stability and equity increases in future years. Please note we will be revisiting these rate increases annually.
Incremental Debt	\$ 13,200,000	\$ 3,800,000	\$ 80,000	\$ -	\$ -	\$ 17,100,000	
Margin	\$ 1,978,996	\$ 2,813,219	\$ 1,941,011	\$ 2,457,017	\$ 3,184,479	\$ 12,374,722	
Equity % of Total Capital	45.6%	46.0%	47.8%	50.2%	52.9%		
TIER	2.20	2.54	2.07	2.40	2.91		
Incremental Cash Flow	\$ 3,614,000	\$ 2,294,000	\$ -	\$ 752,000	\$ 630,000	\$ 7,290,000	

NOTE 1: Pursuant to RUS forms, the above figures exclude RIC financials (estimated 2016-2020 margins of (\$978,126), \$154,409, \$863,443, \$1,240,519 and \$1,203,959, respectively.)

NOTE 2: Options 0, 1, 2 & 3 have not been updated following the initial draft presentation in November. The board approved Option 4 has been revised per board approval on November 20th

ORCAS POWER AND LIGHT COOPERATIVE

APPROVED RATE STRUCTURE

A.	B.	C.	D.	E.
	2016 Approved 5% Increase to All			
	Rate Components			
1	Residential	Present Rates	Change	% Change
2	Facility Rate (\$/Service/Month)	\$38.90	\$1.64	4.22%
3	Demand Rate (\$/Service/Month)		\$0.00	0.00%
4	Energy Assistance Program (\$/kWh)		\$0.0005	0.00%
5	Energy Rates (\$/kWh)			
6	Summer Block 1 (< 1,500 kWh)	\$0.0855	\$0.0037	4.33%
7	Summer Block 2 (1,500 kWh to 3000 kWh)	\$0.0970	\$0.0041	4.23%
8	Summer Block 3 (> 3,000 kWh)	\$0.1150	\$0.0050	4.35%
9	Winter Block 1 (< 3,000 kWh)	\$0.0855	\$0.0037	4.33%
10	Winter Block 2 (3,000 kWh to 5,000 kWh)	\$0.0970	\$0.0041	4.23%
11	Winter Block 3 (> 5,000 kWh)	\$0.1150	\$0.0050	4.35%
12				
	2016 Approved 5% Increase to All			
	Rate Components			
13	Residential TOU	Present Rates	Change	% Change
14	Facility Rate (\$/Service/Month)	\$43.80	\$2.19	5.00%
15	Demand Rate (\$/Service/Month)		\$0.00	0.00%
16	Energy Assistance Program (\$/kWh)		\$0.00	0.00%
17	Energy Rates (\$/kWh)			
18	TOU Period 1 (6 AM - Noon)	\$0.1450	\$0.0063	4.34%
19	TOU Period 2 (Noon - 6 PM)	\$0.0900	\$0.0035	3.89%
20	TOU Period 3 (6 PM - 8 PM)	\$0.1450	\$0.0063	4.34%
21	TOU Period 3 (8 PM - 6 AM)	\$0.0400	\$0.0010	2.50%
22				
	2016 Approved 5% Increase to All			
	Rate Components			
23	Small Commercial (<20 kW)	Present Rates	Change	% Change
24	Facility Rate (\$/Service/Month)	\$54.90	\$2.75	5.00%
25	Energy Assistance Program (\$/kWh)		\$0.00	0.00%
26	Energy Rates (\$/kWh)			
27	Block 1 (< 5,000 kWh)	\$0.0870	\$0.0034	3.91%
28	Block 2 (> 5,000 kWh)	\$0.0970	\$0.0039	4.02%
29	Demand Rates (\$/kW)			
30	First 20 kW (Flat Rate)	\$5.00	\$0.25	5.00%
31				
	2016 Approved 5% Increase to All			
	Rate Components			
32	Large Commercial (> 20kW)	Present Rates	Change	% Change
33	Facility Rate (\$/Service/Month)	\$54.90	\$2.75	5.01%
34	Energy Assistance Program (\$/kWh)		\$0.00	0.00%
35	Energy Rates (\$/kWh)			
36	Block 1 (< 5,000 kWh)	\$0.0790	\$0.0030	3.80%
37	Block 2 (5,000-150,000 kWh)	\$0.0873	\$0.0034	3.89%
38	Block 3 (>150,000 kWh)	\$0.1162	\$0.0049	4.22%
39	Demand Rates (\$/kW)			
40	Block 1 (< 300 kW)	3.15	\$0.16	5.00%
41	Block 2 (> 300 kW)	4.73	\$0.24	5.00%
42				
	2016 Approved 5% Increase to All			
	Rate Components			
43	Pumps	Present Rates	Change	% Change
44	Facility Rate (\$/Service/Month)	\$34.40	\$1.72	5.00%
45	Energy Assistance Program (\$/kWh)		\$0.00	0.00%
46	Energy Rates (\$/kWh)			
47	0 - 370 kWh	\$0.0923	\$0.0037	4.01%
48	370-5,000 kwh	\$0.0802	\$0.0031	3.87%
49	Over 5,000 kWh	\$0.0900	\$0.0035	3.89%
50	Demand Rates (\$/kW)			
51	First 20 kW (Flat Rate)	\$0.00	\$1.00	0.00%
52	Over 20 kW	\$3.15	\$0.16	5.00%

ORCAS POWER AND LIGHT COOPERATIVE

STATEMENT OF CASH FLOW

NON GAAP

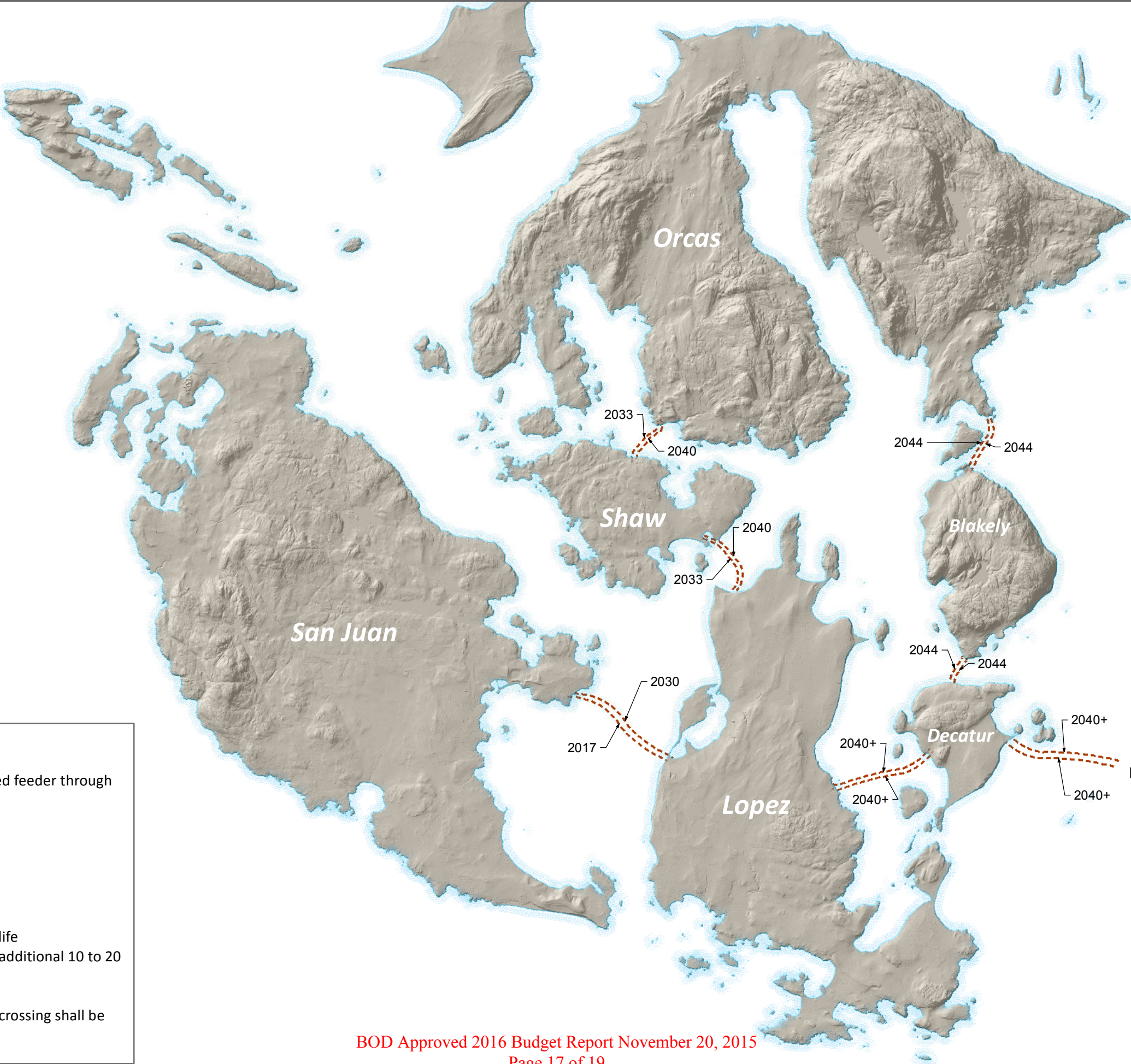
	A.	B.	C.	D.	E.	F.	G.	H.	I.
	Audited	Audited	Audited	Projected	Approved	Forecast	Forecast	Forecast	Forecast
	Year-End	Year-End	Year-End	Year End	Budget	12/31/2017	12/31/2018	12/31/2019	12/31/2020
	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016				
1 % Rate Increase					5%	5%	6%	6%	6%
2 OPERATING ACTIVITIES:									
3 Margins	\$ 815,000	\$ 972,000	\$ 122,000	\$ 1,156,000	\$ 1,979,000	\$ 2,813,000	\$ 1,941,000	\$ 2,457,000	\$ 3,184,000
4 Plus Depreciation/Amortization	2,652,000	2,720,000	2,976,000	3,302,000	3,673,000	3,993,000	4,625,000	4,829,000	5,015,000
5 Cash Flow Operations	3,467,000	3,692,000	3,098,000	4,458,000	5,652,000	6,806,000	6,566,000	7,286,000	8,199,000
6									
7 PLANT INVESTMENT (NET)									
8 Plant Investment (including material inventory)	(3,955,000)	(5,899,000)	(9,880,000)	(12,805,000)	(12,831,000)	(13,364,000)	(3,732,000)	(3,371,000)	(4,835,000)
9 Cash Flow From Operations and Plant Investment:	(488,000)	(2,207,000)	(6,782,000)	(8,347,000)	(7,179,000)	(6,558,000)	2,834,000	3,915,000	3,364,000
10									
11 CASH FLOWS FROM PATRONAGE CAPITAL	(659,000)	(712,000)	(840,000)	(484,000)	(832,000)	(515,000)	(1,160,000)	(1,068,000)	(518,000)
12 Cash Flow Before Borrowings	(1,147,000)	(2,919,000)	(7,622,000)	(8,831,000)	(8,011,000)	(7,073,000)	1,674,000	2,847,000	2,846,000
13									
14 NET BORROWINGS	1,132,000	2,173,000	7,537,000	12,728,000	11,625,000	1,867,000	(1,745,000)	(2,095,000)	(2,216,000)
15 RIC repayment of start-up loan						7,500,000	-	-	-
16 Cash Increase (decrease) After Net Borrowings	(15,000)	(746,000)	(85,000)	3,897,000	3,614,000	2,294,000	(71,000)	752,000	630,000
17									
18									
19									
20 OUTSTANDING DEBT BALANCE	(15,942,000)	(18,114,000)	(25,651,000)	(38,379,000)	(50,005,000)	(51,872,000)	(50,127,000)	(48,032,000)	(45,815,000)
21									
22 EQUITY BALANCE	41,172,000	41,330,000	40,662,000	40,855,000	41,871,000	44,106,000	45,947,000	48,358,000	51,504,000
23									
24 NET UTILITY PLANT	50,210,000	52,538,000	58,199,000	67,064,000	75,789,000	86,470,000	87,832,000	89,244,000	90,526,000

ORCAS POWER AND LIGHT COOPERATIVE

CAPITAL PROJECTS BUDGET - BOARD APPROVED NOVEMBER 20th

			A.	B.	C.	D.	E.	F.	G.	H.	I.	J.
			Actual	Actual	Actual	Budget	Projected Year End	Approved Budget	Forecast	Forecast	Forecast	Forecast
			12/31/2012	12/31/2013	12/31/2014	2015	2015	2016	2017	2018	2019	2020
1	RUS CWP DESCRIPTION											
1	DISTRIBUTION											
2	100	New Services	\$ 148,472	\$ 125,675	\$ 256,450	\$ 164,800	\$ 160,877	\$ 170,000	\$ 176,000	\$ 182,000	\$ 188,000	\$ 194,000
3	200	New Tie Lines	173,133	319,404	341,347	130,000	95,309	-	100,000	-	-	-
4	300	Conversions and Line Changes	640,135	692,238	1,194,755	968,000	770,223	975,000	1,132,500	893,200	1,086,750	828,000
5	400	New Substations, switching station, metering point, etc.	-	-	-	-	-	-	-	-	-	-
6	500	Substation, Switching Station, Metering Point Changes	9,107	123,386	23,034	-	145	-	310,000	95,000	-	145,000
7	600	Miscellaneous Distribution Equipment										
8	601	Transformers & Meters	342,325	372,396	575,840	379,300	507,750	500,000	515,000	531,000	547,000	564,000
9	602	Sets of Service Wires to increase Capacity	-	-	-	-	-	-	-	-	-	-
10	603	Sectionalizing Equipment	57,055	68,473	401,127	140,000	129,068	255,000	240,000	288,000	240,000	225,000
11	604	Regulators	-	156,491	131,410	-	109,235	325,000	-	-	-	-
12	605	Capacitors	-	-	-	-	-	-	-	-	-	-
13	606	Ordinary Replacements	119,430	236,490	179,366	247,200	224,827	275,000	129,000	133,000	137,000	142,000
14	608	Underground Dist. Cable Replacement	657,710	924,947	3,202,174	1,168,020	2,217,591	2,285,000	1,218,000	1,255,000	1,293,000	1,332,000
15	700	Other Distribution Items										
16	701	Engineering Fees	-	-	-	-	-	-	-	-	-	-
17		701.1 Environmental Consultant (asset portion only)				75,000						
18		701.2 AFUDC - Interest Capitalization				192,570						
19	704	LMS & SCADA	118,155	52,327	1,805	-	29,000	45,000	160,000	-	-	-
20	705	AMR (not including meters)	27,454	-	-	-	-	-	-	-	-	-
21	706	Communications										
22		706.0 Island Network	94,107	322,418	349,692	-	-	-	-	-	-	-
23		706.1 Fiber/Microwave Infrastructure	-	474,460	1,747,051	1,930,000	2,148,514	2,400,000	730,000	50,000	52,000	54,000
24	TRANSMISSION											
25	800	New Tie Line	-	-	-	-	-	-	-	-	-	-
26	900	New Substations, switching station, metering point, etc.	-	-	11,321	-	337	600,000	950,000	-	-	-
27	1000	Line and Station Changes	440,705	365,876	257,537	3,000,000	4,367,563	3,025,000	7,413,000	529,000	533,000	537,000
28	1100	Other Transmission	-	-	-	-	-	-	-	-	-	-
29	GENERATION											
30	1200	Generation	-	-	-	-	-	-	-	-	-	-
31	OTHER											
32	1300	Facilities	330,178	249,280	62,112	150,000	394,055	124,000	62,000	64,000	66,000	68,000
33	1400	Acquisitions	-	-	-	-	-					
34	1500	All Other										
35	1501	Transportation/Equipment/Tools/Radios	313,695	448,241	426,919	565,380	273,112	463,000	338,000	213,000	220,000	227,000
36	1502	Office Equipment/Furniture/Etc.		4,601	7,938	51,500	54,465	30,000	31,000	32,000	33,000	34,000
37	1503	Computer/Servers/Software		358,351	212,073	206,500	253,703	262,000	270,000	279,000	288,000	297,000
38	1504	Community Solar (member funded)				50,000	-	300,000				
39	1600	Minor Projects	635,294	549,042	212,306	90,000	92,068	90,000	93,000	96,000	99,000	102,000
40	RUS CWP SUBTOTAL		4,106,955	5,844,096	9,594,257	9,508,270	11,827,843	12,124,000	13,867,500	4,640,200	4,782,750	4,749,000
41	CONTRIBUTION IN AID OF CONSTRUCTION (CIAC)											
42		New Services, Transformers, Meters	(293,000)	(293,000)	(293,000)	(252,434)	(308,901)	(318,000)	(328,000)	(338,000)	(348,000)	(358,000)
43		Community Solar Member Contributions						(300,000)				
44	RUS CWP NET TOTAL		3,813,955	5,551,096	9,301,257	9,255,836	11,518,942	11,506,000	13,539,500	4,302,200	4,434,750	4,391,000

OPALCO Submarine Transmission Cables



Notes:

Decatur-Blakely cable:

- Deferred from 2018 to 2044 due to upgraded feeder through Moran State Park.

Lopez-Decatur cable:

- Currently rented from BPA
- Unneeded due to upcoming 69KV tap

Based on 40 year life of cable

- Subject to ROV inspection after 20 years of life
- Installing cathodic protection to extend life additional 10 to 20 years for less than 10% of cost.

Per board directive, transmission submarine crossing shall be redundant.



ORCAS POWER AND LIGHT COOPERATIVE

2016 - 2020 BUDGETED STAFFING LEVELS

	A.	B.	C.	D.	
		ACTUAL	APPROVED BUDGET	APPROVED	
		# EMPLOYEES	# EMPLOYEES	# EMPLOYEES	
	DEPARTMENT	2015	2015	2016 - 2020	COMMENTS
1	Operations ¹	22.5	22.5	22.5	
2	Engineering ¹	9.5	9.5	9.5	
3	General Management	4	4	5	Manager of Finance & Member Services reflected in General Management Department
4	Technical Services	2	3	2	Network Engineer position absorbed by other staff
5	Member Services ²	5.5	6.5	6.5	
6	Administration	5	5	4	Manager of Finance & Member Services reflected in General Management Department
7	Energy Savings ²	1.5	2.5	1.5	One Energy Savings position unfunded
8	Rock Island Communications	0	3		Island Network Employees transitioned to Island Network, LLC
9	Total	50	56.0	51	

Notes:

- 1 Engineering & Operations Manager split between departments
- 2 Member & Energy Services Manager split between departments

OPALCO ORGANIZATIONAL CHART— 2016 Budget

