



BOARD OF DIRECTORS
Regular MEETING
November 15, 2018 8:00 a.m.
Lopez Fire Hall

TRAVEL



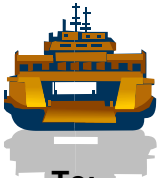
Via Island Air **378-2376**

To:

Leave FH	7:45 a.m.		
Orcas	8:00 a.m.	Arrive Lopez	8:15 a.m.

Return:

Leave Lopez	2:00 p.m.	Arrive Orcas	2:15 p.m.
		FH	2:30 p.m.



Via Ferry:

To:

Leave FH	6:10 a.m.	Arrive Lopez	6:50 a.m.
Orcas	6:45 a.m.		
Shaw	7:00 a.m.	Arrive Lopez	7:30 a.m.

Return:

Leave Lopez	3:50 p.m.	Arrive Shaw	4:10 p.m.
		Orcas	4:30 p.m.
		FH	5:10 p.m.

**Orcas Power & Light Cooperative
Board of Directors
Regular Board Meeting
Lopez Fire Hall**

November 15, 2018 8:00 a.m.*

**Time is approximate; meetings are scheduled around the ferry schedule; if all Board members are present, the meeting may begin earlier or later than advertised.*

PAGES

WELCOME GUESTS/MEMBERS

Members attending the board meeting acknowledge that they may be recorded, and the recording posted to OPALCO's website.

○ **Member Comment Period**

Members are expected to conduct themselves with civility & decorum, consistent with Member Services Policy 17. If you would like answers to specific questions, please fill out the Q&A card for post-meeting follow-up.

ACTION ITEMS

3-31

- Consent Agenda
- Additional Loan Draw
- Capital Credits
 - Applying Capital Credits to Associated Uncollectable Accounts
 - General Retirement
- Strategic Directives
- Policy 29 – *Rate Design*
- 2019 OPALCO Budget
- Updates to Policy 17: Member Participation in OPALCO Meetings (first read)
- EGC Candidate District 4 - Shaw (Action after Executive Session)

DISCUSSION ITEMS

32-53

- Tariff Revisions – 1st Read
- Rate Structure – Block Analysis

REPORTS

54-60

- Q3 Financials
- General Manager
- Rock Island Monthly Snapshot

APPENDICIES

61-64

- PNGC

ADJOURNMENT

Executive Session: EGC, Legal, personnel

MEMORANDUM

November 9, 2018

TO: Board of Directors

FROM: Foster Hildreth

RE: Consent Agenda

All matters listed with the Consent Agenda are considered routine and will be enacted by one motion of the Board with no separate discussion. If separate discussion is desired, that item may be removed from the Consent Agenda and placed as an Action Item by request of a Board member. The minutes will reflect the approved consent agenda.

The Consent Agenda includes:

- **Minutes** of the previous meeting - attached
- **Approval of New Members** - attached {as required by Bylaws Article I Section 2 (d)}
- **Capital Credit** payments to estates of deceased members and/or organizations no longer in business as shown below:

November	
Customer #	Amount
70509	\$ 3,085.03
64388	567.93
64607	795.06
69939	959.72
Total	\$ 5,407.74

- **RUS 219s** *Inventory of Work Orders* of projects completed from the Construction Work Plan totaling \$471,748.98. These forms are submitted to RUS for approval of loan funds.
 - Inventory 201809 – Transformer Replacements and Fiber Projects

Staff requests a motion to approve the Consent Agenda.

Orcas Power & Light Cooperative
Minutes of the Board of Directors Meeting
Thursday, October 18, 2018

President Vince Dauciunas called the meeting to order at 8:20 a.m. at the Eastsound OPALCO office. Board members present were Rick Christmas, Peter Garlock, Mark Madsen, Brian Silverstein, Jeff Struthers and Jerry Whitfield. Staff present were General Manager Foster Hildreth; Manager of Engineering and Operations Russell Guerry; Manager of Finance and Member Services Nancy Loomis, Rock Island Communications (RIC) EVP Alan Smith, RIC CFO/SVP of Finance Chris Schmidt, and Public Relations Administrator Suzanne Olson (serving as recording secretary). Kent Lopez of WRECA, consultant Jay Kimball, and members Dwight Lewis and Kelly Koral were also in attendance.

CONSENT AGENDA

- **Motion** was made and seconded to approve the Consent Agenda, including September 20, 2018 minutes, new members as listed with the Board materials, capital credit payments totaling \$1,617.81 and RUS 219s totaling \$509,654.86. Motion carried by voice vote.

CO-BANK LOC

Hildreth updated the Board on OPALCO's unfunded line of credit with CoBank (zero balance). Staff recommended that the Board execute an updated incumbency certificate for a \$2M committed and \$3M uncommitted LOC. Discussion ensued.

- **Motion** was made and seconded by approve an updated incumbency certificate. Motion carried by voice vote.

WRECA UPDATE

Kent Lopez gave an update on the WRECA annual meeting, summer legislative work on carbon clean energy standards and the history of carbon legislation attempts. Discussion ensued on Initiative 1631 and how to craft a clean energy standard that would significantly reduce carbon emissions. The Board committed to sending emails to legislators and the Senate Energy Committee once a productive bill is crafted.

2017 TAX RETURN

The Board went into Executive Session from 9:35 – 10:00 am to discuss the 2017 tax return.

- Upon return to open session, a **motion** was made and seconded to approve the 2017 tax return. Motion carried by voice vote.

WA STATE RENEWABLE ENERGY SYSTEM INCENTIVE PROGRAM (RESIP)

In September, the board approved a motion to guarantee incentive payouts for fiscal years 2019 and 2020 based on a potential shortfall for 21 waitlisted OPALCO members. WSU notified OPALCO that, due to their error, a single member was excluded from that count, bringing the total to 22. Staff requested a revised motion to guarantee any payout in excess of the maximum (approximately ~\$289k) to its members; the revised possible shortfall is \$18,294 (up from \$16,755.33).

- **Motion** was made and seconded that OPALCO update a guarantee for incentive payouts for fiscal years 2019 and 2020. Motion carried by voice vote.

RATES REVIEW: RATE STRUCTURE ALTERNATIVES

Hildreth reviewed the rate review process throughout 2018 including the Guernsey Cost of Service Analysis. Discussion ensued on energy blocks, beneficial electrification, demand charges and the possibility of a pilot study of AMI meters to accurately track and bill for demand. Discussion on rate blocks included projections for future power needs, EV adoptions, electrification of ferries and load forecasting through PNGC. Consultant Jay Kimball gave a presentation on the rate analysis. Board will answer member questions about billing/rates at the November town hall meeting. The Board wants to demonstrate it is doing everything under their control to minimize bill increases.

LOAD FORECAST

Hildreth led a discussion about the weather factors and industry forecasting tools utilized to make an educated guess at Heating Degree Days (HDD). The load forecast is a key budget driver for kilowatt hour sales. Discussion ensued on historical trends, weather forecasts for 2019 and budget impacts.

POLICY 29 AND ENERGY CHARGE ADJUSTMENT (ECA) TARIFF

Board reviewed proposed changes in language to Tariff ECA and discussed the two variable elements: a monthly automatic true-up and an "as needed" true-up at the Board's discretion. Discussion centered on the uncertainty of weather and load forecasting, how to share the risk with members without sharp billing increases, precedents in other cooperatives, historical trends and member satisfaction. The automated ECA would have a smoothing effect on bills throughout the year. An informal poll showed

board support for the revised ECA language with some revisions. Staff will bring a revised version to the November meeting.

STRATEGIC DIRECTIVES

Hildreth presented a revised Strategic Directives draft for Board review. Discussion ensued. The Board will review an updated draft in November.

REPORTS

General Manager

Due to time constraints, Dauciunas asked board members to review the GM Report and send any questions to Hildreth.

ADJOURNMENT

Meeting adjourned at 1:25 p.m.

Vince Dauciunas, President

Brian Silverstein, Secretary-Treasurer

NEW MEMBERS – October 2018

District 1 (San Juan, Pearl, Henry, Brown, Spieden)

1. Ausilio, Michael
2. Bressler, Leslie & Brian
3. Cerrillo, Magdalena & Sanabria, Cesar
4. Dockside Treasures LLC
5. Dott, James
6. Harmon, Charles Brock
7. Hart, Mehgan
8. Lowe, Barry & Janette
9. Marinkovich, Madeline
10. McCutcheon, Kenneth H & McKenna
11. Oakes, Griffen T
12. Perrollaz, Evan
13. Peterson, Paul R
14. Rappold, Lee A
15. Roberts, Anna
16. Santora, Trevor & Nicole
17. Schroeder, Mike D & Jennifer
18. Scorpion LLC
19. Springer, Kristine & Christopher
20. Stephan, Erynn
21. Stewart, Brent K
22. Talbot, Zachery
23. Tangney, Stacie
24. Thomas, Kristin
25. Tompkins, Austin
26. Torres, Jaime
27. Wilkinson, Sherri
28. Witter, George & Hannah, Laurie
29. Zia, Dana

District 2 (Orcas, Armitage, Blakely, Obstruction, Big Double, Little Double, Fawn)

30. Beebe, George E & Peggy S
31. Blevins, Colin & Altman, Leah
32. Bowen, Greg
33. Cucolo, Andrew
34. De Broglia, Michael
35. Garrett, Barbara
36. Gray, Angus & Duffy, Patricia
37. Hofmeyer, Steven
38. Ching, Carrie
39. Johanson, Mary
40. Kantrud, Chase
41. Kohler, Jared
42. Langford, Bruce
43. Marion, Issac
44. Maryann Syers PHD, LLC
45. Matson, Mark & Jennings, Lindsay
46. Overby, Craig & Kathleen

47. Rain, Peggy Jo
48. Schlessner, Peggy A
49. Sheldahl, Lynda
50. Walker, Tyrus
51. Wlaysewski, Kathryn

District 3 (Lopez, Center, Decatur, Center, Charles)

52. Ott, Arielle and Chaz
53. Arnold, Eliane
54. Citro, Craig
55. Hanibal, Lee W & Toni C
56. Knapp, Jeff
57. Lavinthal, Leyna & Corn, James
58. Mageau, Daniel
59. McLean, Megan & Ervin, Michael
60. Oakley, John R & Kathryn
61. Ozur, Mark C
62. Paxman, Susan
63. Pollard, Lauren & John
64. Weckel, Laurie
65. Wing, Ernest & Pagan, Vickie J

District 4 (Shaw, Crane, Canoe, Bell)

66. Maxey, Katharine & Corey

10/12/2018 6:03:42 pm

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RUS Form 219 Inventory Of Work Orders

Period: SEP 2018 System Designation: WA AH O9

Inventory: 201809

Loan		Work Order		Bdgt (3)	Gross Funds Required		Deductions			Loan Funds Subject To Advance By RUS (9)
					Cost Of Construction: New Constr Or Replacements (4)	Cost Of Removal: New Constr Or Replacements (5)	Salvage Relating To New Construction Or Replacements (6)	Retirements Without Replacements (7)	Contrib In Aid Of Constr and Previous Advances (8)	
Project	Year	Construction (1)	Retirement (2)							
601	2018	2486	2486	1	5,660.62	866.07	25.05	0.00	0.00	6,400.86
								AFUDC: 100.78		
601	2018	2851		1	5,994.69	0.00	0.00	0.00	0.00	5,955.26
								AFUDC: 39.43		
					11,655.31	866.07	25.05	0.00	0.00	12,356.12
706 - 3	2018	2282		1	301,706.60	0.00	0.00	0.00	0.00	293,454.97
								AFUDC: 8,251.63		
706 - 3	2018	2699		1	168,996.47	0.00	0.00	0.00	0.00	165,937.89
								AFUDC: 3,058.58		
					470,703.07	0.00	0.00	0.00	0.00	459,392.86
Grand Totals:					\$ 482,358.38	\$ 866.07	\$ 25.05	\$ 0.00	\$ 0.00	\$ 471,748.98

10/12/2018 6:03:42 pm

RUS Form 219 Inventory Of Work Orders

Page: 4

Period: SEP 2018

System Designation: WA AH O9

Inventory : 201809

Budget

Loan	Project	Amount
1	601	12,356.12
1	706 - 3	459,392.86
Total:		471,748.98

BORROWER CERTIFICATION

WE CERTIFY THAT THE COSTS OF CONSTRUCTION SHOWN ARE THE ACTUAL COSTS AND ARE REFLECTED IN THE GENERAL ACCOUNTING RECORDS. WE FURTHER CERTIFY THAT FUNDS REPRESENTED BY ADVANCES REQUESTED HAVE BEEN EXPENDED IN ACCORDANCE WITH THE PURPOSES ON THE LOAN, THE PROVISIONS OF THE LOAN CONTRACT AND MORTGAGE, RUS BULLETINS, AND THE CODE OF FEDERAL REGULATIONS RELATIVE TO THE ADVANCE OF FUNDS FOR WORK ORDER PURPOSES. WE CERTIFY THAT NO FUNDS ARE BEING REQUESTED FOR REIMBURSEMENT OF CONSTRUCTION WORK IN A CBRA AREA.

SIGNATURE (MANAGER)

DATE

SIGNATURE (BOARD APPROVAL)

DATE

ENGINEERING CERTIFICATION

I HEREBY CERTIFY THAT SUFFICIENT INSPECTION HAS BEEN MADE OF THE CONSTRUCTION REPORTED BY THIS INVENTORY TO GIVE ME REASONABLE ASSURANCE THAT THE CONSTRUCTION COMPLIES WITH APPLICABLE SPECIFICATIONS AND STANDARDS AND MEETS APPROPRIATE CODE REQUIREMENTS AS TO STRENGTH AND SAFETY. THIS CERTIFICATION IS IN ACCORDANCE WITH ACCEPTABLE ENGINEERING PRACTICE.

INSPECTION PERFORMED BY

FIRM

LICENSE NUMBER

DATE

SIGNATURE OF LICENSED ENGINEER

November 9, 2018

To: Board of Directors

From: Foster Hildreth, General Manager

Re: Additional 2018 Loan Draw

The purpose of this memo is to request additional RUS loan funds in the amount of \$2M for 2018. This funding will be used for the General Retirements of Capital Credits and meet Q4 budget obligations.

As was discussed and presented to Board throughout 2018, warmer weather patterns, which resulted in lower kWh sales were experienced throughout the year. When combined with the shift of capital expenditures to Q4 2017, along with other priority CWP projects moving in to take their place, the timing of RUS borrowings was accelerated during the year to address cash flow requirements.

As shown below, the cash shortfall was partially offset by lower expenditures.

Detail on Additional Funding Request

	A. Description	B. Amount (Approximation)	C. Cumulative Totals
1	2017 Capital Projects Q4 Overages		
2	Submarine Cable	(150,000)	
3	Decatur Tap and Substation	(1,300,000)	
4	Joint Projects	(1,600,000)	
5	Permitting	(200,000)	
6	2018 Capital Projects Overage	(400,000)	
7	Subtotal		(3,650,000)
8			
9	2018 Revenue and Power Cost		
10	Revenue	(800,000)	
11	Power Cost	150,000	
12	Subtotal		(650,000)
13			
14	2018 Offsets		
15	Operating Expense Reduction	500,000	
16	Cushion of Credit Draw Down	1,800,000	
17	Subtotal		2,300,000
18			
19	Additional Funding Requested		(2,000,000)

Staff is requesting a board motion to approve an increase to the 2018 RUS borrowings by \$2M for the items listed above.

MEMORANDUM

November 9, 2018

To: Board of Directors

From: Foster Hildreth, General Manager

Re: Applying Capital Credits to Associated Uncollectable Accounts

Staff has transferred delinquent inactive accounts to an uncollectable account (UA) status. The next step in this process is to proportionately apply previously allocated member capital credits to UA balances.

It is important to note that our billing software ‘flags’ accounts and associated capital credit payment processes when member accounts are transferred to the status of uncollectable. When staff processes the year-end check run to pay allocated member capital credits, our software will first pay uncollectable account balances before issuing a capital credit check for any remaining balance.

Staff is requesting that ~\$942 of member capital credits be applied to UA balances. The member capital credit allocation transfers are as follows:

Capital Credits Applied to UA Balance	\$942
Discounted Capital Credits Remain in Equity	5,173
Total Capital Credits Retired	\$6,115

Staff recommends the board make a motion to approve the use of member allocated capital credits to reduce and/or offset individual member delinquent UA balances as referenced in the Capital Credit /Bad Debt Payment Program report.

MEMORANDUM

November 09, 2018

To: Board of Directors

From: Foster Hildreth, General Manager

Re: Capital Credit General Retirement

The purpose of this memorandum is to obtain Board approval to fund the general retirement of capital credits. Please note staff is continuing with the concept of smoothing, whereby we fund the remaining unretired balance from 1993 and a portion of 1994 as follows.

Year	Retirement	Cash
1993 (~61%)	\$862,164	~\$671,192
1994 (~31%)	\$437,836	~\$340,808
Total	\$1,300,000	~\$1,012,000

This will continue our 25-year retirement rotation and capital credit retirement smoothing methodology established by the board in December 2017. As a reminder, smoothing the annual general retirements produces a predictable schedule that will allow us to not only stay ahead of the 25-year retirement schedule, but also avoid fluctuations in margins, cash and equity stemming from capital credits.

Staff is requesting a motion to approve the payment and retirement of capital credits for the remainder of 1993 and a portion of 1994, as outlined above.

MEMORANDUM

November 9, 2018

TO: Board of Directors

FROM: Foster Hildreth

RE: Strategic Directives: Review and Confirmation

As requested at the October Board meeting, staff requests the Board review the updated Strategic Directives. These directives serve as the basis for the budget process.

Staff requests the board motion to approve revised directives as presented.

Orcas Power & Light Cooperative

Board of Directors

Strategic Directives

Board Strategic Directives provide guidance in achieving the goals and objectives of OPALCO and serve as the basis for the General Manager's performance appraisal.

1. **Safety**

Safety is our highest priority. Safety programs will be implemented to engage all staff members and to promote OPALCO's high standards for safety with a goal of no accidents.

2. **Reliability of Electric Service**

Maintain reliability of electric service.

3. **Sustainable Power Supply Strategy**

Maintain a long-term strategy to provide safe, adequate, reliable, advantageously priced power, including consideration of source risk and economic, climate and energy policy uncertainty consistent with our OPALCO grid operations.

4. **Vision**

Maintain a long-range vision for the future of the Co-op that addresses the evolution, maintenance and operation of the power and communications grid with a focus on member quality of life, sustainable communities and local resiliency. Maintain and publish guiding documents (Load Forecast, Cost of Service Analysis, Rate Structure Design, Construction Work Plan, Long Range Plan, Long Range Financial Forecast, Integrated Resource Plan) that encompasses OPALCO's overall strategic vision for incorporating grid modernization and local renewable generation (i.e. loop feeds, AMI, utility scale renewables and storage).

5. **Personnel**

Attract and retain top quality employees by actively cultivating a workplace culture based on mutual respect that embraces diversity, encourages high team functionality and harmony, promotes personal and professional development and maintains high employment satisfaction. Maintain wage rates that are competitive within the industry and for our region. Include apprenticeship and training programs for all positions and succession planning for key positions.

6. **Member Satisfaction**

Sustain high levels of member satisfaction as evidenced through periodic member surveys.

7. **Communications with Members**

Provide regular communication outreach to inform members of relevant issues and to encourage member participation and engagement in co-op affairs. Maintain transparency for co-op governance and operations. Cultivate a culture of listening and provide opportunities for member feedback.

8. **Cash and Debt Fund Availability**

Ensure revenue and financial stability and have cash and debt availability to provide for foreseeable demands and to mitigate the impacts of potential significant damaging events including storm damage, loss of electric supply, equipment or cable failure.

9. **Debt & Equity**

Maintain appropriate levels of debt and equity that support the long-range financial plan while maintaining all loan covenants and meeting regulatory requirements.

10. **Communication Backbone**

Maintain fiber optic and wireless communications infrastructure to support grid operations for OPALCO and its subsidiary.

11. **Rock Island Communications**

Manage OPALCO's wholly-owned subsidiary to provide our membership high quality, reliable internet, voice and communications services. Prioritize communications to emergency responders and fiber to the home deployment while continually improving wireless services and maintaining key partnerships.

Vince Dauciunas, President

November 15, 2018

Date

MEMORANDUM

November 9, 2018

TO: Board of Directors

FROM: Foster Hildreth

RE: Policy 29 – *Rate Design* (Second Reading)

Policy 29 has been updated to incorporate comments from the October Board meeting.

Staff requests a motion to approve Policy 29 *Rate Design* as updated.

ORCAS POWER AND LIGHT COOPERATIVE

POLICY 29

RATE DESIGN

29.1 PURPOSE

To set forth policy relating to the development and implementation of electric rates that follows the strategic objectives of the Cooperative.

29.2 POLICY

29.2.1 Commitment to Rate Design

It is the policy of the Board of Directors of the Cooperative to develop electric rates that allow the Cooperative to provide electricity that is reliable, cost-based, considerate of the environment and maintains the Cooperative's financial strength. The Cooperative's Rate Structures shall meet revenue requirements, fairly allocate the Cooperative's expenses in relation to each members' use of and impact on the system, reduce the effects of weather, market and other volatility and promote stability in the Cooperative's strategic directives.

29.2.2 Basic Fundamentals

29.2.2.1 The Cooperative will periodically perform cost of service studies to inform whether existing rate structures are meeting the goals of this policy.

29.2.2.2 Rates will be developed and implemented that:

29.2.2.2.1 Meet revenue requirements and are cost-based;

29.2.2.2.2 Are implemented over time when dramatic rate changes occur;

29.2.2.2.3 Generate margins which meet long-term financial objectives and lender requirements and as per the Cooperative's strategic directives;

29.2.2.2.4 Decrease revenue volatility.

29.2.2.3 Rate Structure

29.2.2.3.1 **Energy (kWh)**: A variable mechanism that passes energy costs to members based on their usage and is strongly competitive with other carbon-based fuel resources;

29.2.2.3.2 **Demand**: A demand component for commercial services which reflects the costs associated with variable need for system capacity for all member classes as the phase out/replacement of existing meters progresses; a demand component for residential services will be further considered once automated metering infrastructure (AMI) is in place.

- 29.2.2.3.3 **Service Access Charge**: A fixed charge which collects the balance of revenue requirements not collected via the energy or demand components;
- 29.2.2.3.4 **Energy Charge Adjustment**: The purpose of this mechanism is to aid in balancing the cooperative's finances. A two-part, variable adjustment applied as separate bill line items as follows: 1) An automated monthly reoccurring true-up (surcharge or credit) to be applied to each member billing on a kWh basis, which adjusts for increases or decreases in the cost of power purchased as compared to the budgeted vs. actual cost per kWh sold (see tariff for calculation); and 2) on an as-needed basis and subject to board approval, a variable mechanism that balances the fluctuation in revenues to meet strategic directives.

29.2.2.4 Rate increases necessary to meet budgetary revenue requirements are to be applied per Board-approved methodology.

29.2.2.5 Rates shall be independent of OPALCO approved member programs for energy conservation (energy assist program (EAP), Project PAL, member owned renewal energy (MORE), etc). The determination of the funding of these programs will be through Board action as laid out during the budgeting process.

29.2.3 Management Responsibility

29.2.3.1 Management will be held accountable for implementing rates as approved by the Board of Directors and routinely report to the Board of Directors as to the need to adjust rates to account for changes in cost or strategic directives.

Effective Date: 01/01/2019

J. Foster Hildreth, General Manager

MEMORANDUM

Date: November 9, 2018

To: Board of Directors

From: Foster Hildreth, General Manager

Re: 2019 Budget Presentation

Attached please find our 2019 Budget Presentation. Consistent with last year's projections, staff is recommending a 5.2% revenue increase for the 2019 budget year only. Staff is recommending that our 2019 budget revenue increase from \$28.8M (projected 2018) to \$30.3M to meet our financial, operational and capital project commitments. The majority of the required \$1.5M increase includes \$560k for depreciation and interest expense (primarily submarine cable project) and \$320k in power cost. In addition, we will fill the System Engineer vacancy in 2019 and add two Apprentice Lineman positions to prepare for crew retirements on the horizon. The projected figures for years 2020 thru 2023 are for reference only, as future years will be reviewed annually during our normal budgeting process.

The 2019 budget continues to align our operations to the mission statement of providing safe, reliable, cost effective, and environmentally sensitive utility services. This budget prepares OPALCO to meet the marks set out in our energy road map:

TODAY: Make the most of our available resources. Reduce members' total energy bills through electrification of transportation and heating while continuing to modernize the grid to meet future needs.

TOMORROW: Increase local resilience. Bring more local renewables on, leveraging our dynamic grid and building emergency back-up power for emergency services.

FUTURE: Give members more control. In the coming "transactive" energy world, members will dynamically buy and sell local power, make decisions about their power usage in response to real time price signals and integrate energy storage (EVs, batteries...) into the Co-op grid.

The Board held two rate work sessions in 2018, in preparation for a full Cost of Service Analysis (COSA), which was performed by an independent contractor, Guernsey Consultants. Results, available at www.opalco.com, informed the Board's discussion on rates for 2019.

The 2019 Budget includes a battery storage project on Decatur Island, planning for the next Community Solar project (est. 2020) and the launch of a new on-bill finance program to encourage members to switch to electricity for heating and transportation. The budget also includes the delayed sewer remodel of our Eastsound headquarters.

This will be the Board's first reading of the rates, which will be brought back to the Board in December for their approval. A budget narrative is provided detailing the basis, assumptions and notable drivers.

Staff recommends Board make a motion to approve the 2019 budget as submitted.

BUDGET NARRATIVE

Mission:

OPALCO serves our members with safe, reliable, cost effective and environmentally sensitive utility services. Our mission drives our budget in the following ways:

✓ Safety – The expansion of OPALCO's grid, built on our fiber backbone provides a tremendous boost to public safety. Using the fiber and devices connected into our system throughout the islands, OPALCO can reroute power quickly to our members and puts data in the hands of crew members in the field to rapidly locate and resolve outages. First responders, including OPALCO linemen, can reach out for help in the field; members and tourists can get help in times of crisis and our County is connected to real-world services for education, economic development and quality of life.

✓ Reliability – We continue to budget for replacement of the oldunjacketed underground cable (referred to as URD) system wide. This trend will continue with prioritization of replacement targeted at the areas with higher failure rates. With each URD project, where needed, we include fiber and increase the reach of our fiber network and therefore the reach of our monitoring and control system. In 2019, we will complete the first Energy Storage System (0.5MW/2 MWh battery) on our system at Decatur substation. This battery, along with the 504kW-DC Community Solar array, completes the first step toward a local power supply in case of emergency.

✓ Cost Effective – Our capital construction plan is designed to maximize system efficiency and make best use of member resources. The continual expansion of our grid and fiber-connected devices on our system, helps to contain costs by putting control of the system in the hands of crew members wherever they are. The days of sending linemen out in a storm, in a boat, on a dark night, are going away. The battery storage

bank at the Decatur substation will create cost savings through load shifting and peak shaving, as well as store local power generated by our Community Solar project. With equipment replacements scheduled for 2019, greater efficiency and cost savings will contribute to our sustainability as a co-op. The higher cost of managing a remote, rural utility in our island environment is tempered through prudent use of technology best practices.

✓ Environmentally Sensitive – OPALCO has significant infrastructure installed throughout our beautiful and sometimes fragile island environs. Doing the right thing comes at a cost that is reflected in our cost of service and OPALCO is committed to good stewardship, working within the County's Critical Areas Ordinance, complying with all permitting requirements and keeping as low a profile as possible to maintain island character. OPALCO is contributing to the County Comprehensive Plan review (2017-2019) to align our energy future policies and practices with this vision of stewardship and sustainability.

Load Forecast:

The Load Forecast is the heart of the budget and the most precarious aspect of our forecasting. The energy management team of PNGC (Pacific NW Generating Cooperative) assisted us with load forecasting for this budget. They bring valuable industry expertise and resources to our Co-op to help us navigate the rapidly evolving energy market.

OPALCO's load peaks in the winter, in large part due to increased heating and lighting load. Weather drives heating load. Predicting the weather for a year ahead is fraught with uncertainty due to variations of temperature, wind and humidity and yet we depend on weather forecasting to meet our budgetary commitments. In 2019, the forecast is for a return to a warmer El Niño weather pattern with projected kilowatt hour purchases from PNGC of 206M kWh. As a point of reference, OPALCO's load has averaged 215M kWh, ranging between 204M (2015) – 229M (2017) kWh.

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 how much 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 gauge what impact the weather may have on our Cooperative, we incorporate analysis from various sources which include BPA's climatologist, the National Oceanic and Atmospheric Administration (NOAA), the Office of the Washington State Climatologist, and other Northwest climatologists. 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.

BUDGET ASSUMPTIONS

GENERAL:

1. General Inflation Rate:

The general annual inflation rate has been projected at 3.25% for years 2019, 3.50% for 2020 and 4.0% for years 2021 through 2023.

2. 2019-23 Budget Basis:

The 2019-223 budgetary figures have been forecast with the use of actual activity from January through September 2018 and adjusted 4th quarter 2018 projections.

3. BPA Power Cost Projections:

- BPA operates on a two-year rate cycle. 2019 is the first year of a new rate case. In 2019, we are budgeting for BPA increases of 5% over 2018 to cover fish spill surcharge, power cost recovery adjustment clause (CRAC) increase, BPA financial reserves CRAC, and residential exchange charges. OPALCO works with PNGC to identify these cost increases.
- For 2019, we are using PNGC's power purchase forecast of 5%. From 2021 through 2023, we have maintained a 5% BPA cost increase for each year.
- Load growth is expected to be slightly less than 1% per year.

4. Labor:

- Staffing levels are budgeted at 51 full-time OPALCO employees in 2019 (see organization chart). This includes two new apprentice linemen positions as part of our line crew succession planning.
- The general wage increase is in accordance with the current Collective Bargaining Agreement, which is based on the CPI index.
- The benefit growth assumptions are in accordance with 2019 NRECA and LineCo rate projections based on the changes to the benefits package.

5. Capital Projects:

- The 2019 capital projects are based on the 2017 – 2020 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.
- Distribution System:
 - New Services continue to trend upward since the lows of the recession (2008-13). For 2019, \$372k is budgeted with an average of \$400k per year projected in future years. Please note: contributions in aid of construction (CIAC) offset the expense, but the uptick represents significant project work for our crews.
 - Underground Residential Distribution (URD) replacement will continue based on the following criteria: age, cable type, neutral degradation and, most importantly, outage frequency and outage duration. There is approximately 140 miles of unjacketed URD to replace system-wide over time with problem areas mapped for priority scheduling. In 2019, 18 miles of URD is slated for replacement at a budgeted cost of \$1.4 M. Staff expect an average

annual spending of \$1.5 - \$2M for the foreseeable future for replacement ofunjacketed URD.

- Conversions, Line Changes and Tie Lines - ~\$750k is budgeted in 2019 for conversion to large conductors: upgrading lines to carry greater capacity and increased ability to reroute power.
- Sectionalizing Equipment shows an uptick in expense for the next four years as we replace aging switches and protective devices. Automated switches on our system improve reliability and give us greater visibility into our system.
- SCADA spending is business as usual in 2019 (\$116k) with security upgrades planned as we segment our SCADA system away from our business networks.
- Grid Control Communications Infrastructure (fiber) expansion for 2019 (\$150k) is budgeted to connect generators to active sites for power back-up and reliability.
- Transmission System – Projects include the routine replacement of transmission poles and a rebuild of the north Shaw submarine cable terminal foundations for cable #2.
- Facilities – Increased spending budgeted for 2019 (\$500k) to replace the degraded plumbing and sewer systems in the Eastsound headquarters. This was budgeted in 2018 but pushed out to 2019 due to permitting and planning delays.
- Transportation – Capital expense for fleet are expected to average ~\$575K per year.
- Community Solar Project
 - Energy Storage System (ESS) – The 2019 budget includes \$1.2M to match a DOE grant of \$1M for a battery storage bank. We plan to use a single versatile 0.5MW/20 MWh ESS to provide four complementary functions that enhance grid reliability and operation,

and community solar array performance, while increasing storage system “capacity factor” and saving money on our power bill from BPA:

1. Community solar array conditioning: Conditioning of intermittent solar array output and store energy for later use.
 2. Peak shaving: Discharging battery system during normal system peaks and large outage restoration events to reduce peak charges while restoring the systems quicker.
 3. Load Shifting: Shifting system usage from peak intervals to off peak intervals.
 4. Substation battery backup during system outages: Use of this system to ensure switching capability during extended outages. This is a first step toward an emergency power supply during major mainland outage.
- Planning for Next Community Solar Project – The 2019 budget includes planning expenses for a potential next project in 2020 including siting, scoping and communication.

6. Energy Savings:

- Staff have applied for RESP funds from RUS to provide an on-bill financing to members for efficiency / fuel switching measures. Program administration will begin in 2019.
- Staff has applied for grants through the WA Department of Commerce for vehicle-to-grid, solar, and battery storage projects. New sites will be evaluated in 2019 for these projects.
- BPA/PNGC pass-through rebates will continue for ductless heat pumps, weatherization, commercial lighting, and appliances.
- Beneficial electrification (fuel-switching) rebates are offered again in 2019. More self-funded incentives for ductless heat pumps and EV charging stations are available. These conversions bring new load (kWh usage) and revenue, and help members breach the cost barrier for these appliances.

- Low-income weatherization partnership with the Opportunity Council will be offered in 2019. This program provides a whole house weatherization and efficiency upgrade for qualified members. OPALCO provides up-front costs (\$30-50K) and is reimbursed by BPA.
- Staff will continue to get support for energy education and outreach via the San Juan Islands Conservation District.

7. Capital Credits

- Capital credit pay out cash planning is based on an average 25 year pay back cycle (1994 capital credits in 2019) plus an additional “smoothing” payout amount (52% portion of 1995 in 2019). For the next five years, \$1.3M in capital credits are expected to be retired per year. The goal is to smooth out the low and high year payouts by using an average rather than strict year total.

8. Energy Assistance Program:

- The 2019 Budget includes a continuation of ~\$116k for low-income monthly bill credits, which range from \$25 (single person household) to \$55 (six or more person household) per month, and not to exceed the total bill amount. The Energy Assistance Program is funded as a line item on all member bills (approximately \$0.60 on the average residential bill). Approximately 418 members participated in 2018, up from 284 in 2017. Outreach continues to encourage participation.

OVERALL SUMMARIZATION:

1. Revenue:

Staff recommends a total revenue increase of ~5.2% for 2019. The recommended increase applies equally to both the facility charge and energy usage charge, while balancing the cost of service between rate classes. Based on the 2018 cost of service study, we will begin a five-year phased approach to balancing equitability between the rate classes.

2. Margins:

Per Staff recommendation, projected margins are as follows: \$ 1.9M in 2018 (projected), \$1.8M in 2019 (budget), \$1.8M in 2020 (forecast), \$2.5M in 2021 (forecast), \$3.0M in 2022 (forecast), and \$3.5M in 2023 (forecast).

3. TIER:

Per Staff recommendation, TIER is as follows: 2.07 in 2018 (projected), 1.93 in 2019 (budget), 1.88 in 2020 (forecast), 2.18 in 2021 (forecast) 2.40 in 2022 (forecast), and 2.53 in 2022 (forecast).

4. Equity % of Total Capitalization (OPALCO):

Per Staff recommendation, Equity % of Total Capitalization is as follows: 40.3% in 2018 (projected), 38.8% in 2019 (budget), 37.9% in 2020 (forecast), 37.8% in 2021 (forecast), 38.6% in 2022 (forecast), and 39.9%in 2023 (forecast).

5. Debt:

OPALCO is expected to borrow \$4M RUS in year 2019, \$3M each year through 2022 and \$3.5M in 2023, for capital projects. \$5.8M in RUS Rural Energy Savings Program funds will be borrowed at 0% over a 10-year period to provide on-bill financing to members for efficiency / fuel switching measures. We anticipate using our approved RUS (FFB) loan funds and have estimated interest rates between 3% and 4% for 2019 through 2022.

6. Rate Detail:

- The chart below details the impact on average residential members Energy Assistance Program and PAL recipients. An average residential member (13,228 meters) would see a bill increase of about \$9.38 including the Energy Assistance Program line item.

	Average Residential User		Average EAP Recipients	Average PAL Recipients	Average Seasonal Occupancy
Number of Services (Meter Points)	13,228		321	421	1,553
Average Months of Usage	12		12	12	12
Average Usage (kWh) per month	991		909	794	781
Average Monthly Bill using Existing Rate (2017)	142.87		134.57	122.93	121.62
Average Monthly Bill using Recommended Rate (2018)	152.25		143.55	131.33	129.96

Notes: 1) Data period from November 2017 to October 2018.

2) Seasonal Occupancy based on greater usage on May through September than rest of year.

3) PAL and EAP accounts based on those in database who received assistance during data period.

MEMORANDUM

November 14, 2018

TO: Board of Directors

FROM: Foster Hildreth

RE: Revisions to Member Services Policy 17 - *Member Participation at OPALCO Meetings* (formerly OPALCO Policy 11)

This is the first read of policy revisions which will modify Member Service Policy 17, addressing member attendance and decorum at OPALCO meetings. Our goal is to promote harmony with and participation from all members.

In summary, the updated language creates a three-strike rule to discourage continuing policy violations.

This is the first read; no action is necessary at this time.

ORCAS POWER AND LIGHT COOPERATIVE

MEMBER SERVICE POLICY 17

MEMBER PARTICIPATION AT OPALCO MEETINGS

17.1 GOALS AND OBJECTIVES

As a member-owned electric cooperative, member participation in the affairs of OPALCO is both expected and encouraged. The purpose of this policy is to establish guidelines, help foster attendance at OPALCO meetings, and establish respectful communication among members, including the Board of Directors. OPALCO encourages member interest in the governance of its cooperative and welcomes member attendance at all OPALCO meetings.

17.2 OPALCO BOARD MEETINGS

Meetings of the OPALCO Board of Directors are conducted in accordance with the current edition of *Robert's Rules of Order Newly Revised*. Meetings of the Board of Directors are held on the three main ferry-served islands (San Juan, Orcas and Lopez) on a rotating basis to maximize member attendance. By rotating the meeting locations, the Board of Directors intent is to maximize member ability to participate.

- 17.2.1 All meeting materials are posted on the OPALCO website in advance of the monthly meeting. The minutes are posted once approved.
- 17.2.2 At each regular monthly meeting of the Board of Directors, members will be offered an opportunity to address the Board at the beginning of each meeting with the following criteria:
 - 17.2.2.1 Members will state their name and island of residence;
 - 17.2.2.2 Members will identify the topic they wish to address;
 - 17.2.2.3 Members will have 5 minutes to voice their comments.
- 17.2.3 Members are expected to act with civility and maintain decorum:
 - 17.2.3.1 Any comments must be respectful and not be personal in nature, including those made to other members, cooperative staff and directors;
 - 17.2.3.2 If a member is representing a group of members, one representative is encouraged to speak on behalf of the group or organization, in the interest of time;
 - 17.2.3.3 Meeting participants shall refrain from disruptive or distracting behavior. Unruly behavior, (including but not limited to applause, booing or hissing, interruption or harassing remarks) is prohibited. Participants shall respect individual physical and personal space and refrain from any form of physical or verbal intimidation or abuse.

- 17.2.3.4 The Board may allow member participation during discussion of an item at the Board President's (or presiding director's) discretion, providing that such participation does not unnecessarily slow board deliberations and ensuring that member participation does not interfere with the conduct of Cooperative business.
- 17.2.4 Subject to the approval of the Board President, ~~or~~ presiding director, **or any designee**, any member may request permission to address the Board of Directors outside the initial opening of each meeting. If the request is approved by the Board President or presiding director and is received at least ten business days prior to a board meeting, that person's name and topic will normally appear on the agenda.
- 17.2.5 Communication in writing may be distributed to the Board of Directors prior to any meeting or may be included with the board materials, subject to approval by the General Manager.

17.3 OTHER MEETINGS

Other meetings held on behalf of OPALCO (committee or special) shall be noticed pursuant to Bylaws Articles II & IV.

17.4 VIDEO RECORDING AT MEETINGS

The intent is to video record regular board meetings (and other meetings as determined by the Board), for those members who are not in attendance, making it more accessible for the entire membership to review the governance of OPALCO. OPALCO will include video recordings when practical and cost effective, as follows:

- 17.4.1.1 Video recording will utilize existing video equipment that OPALCO already uses for operational purpose.
- 17.4.1.2 Recordings will be a static, non-interactive, not live, unedited feed and made available through the OPALCO website. Recordings will be available on OPALCO's website for a rolling period of 12 months.
- 17.4.1.3 Due to rotation of meetings, equipment may not be available in all meeting locations.
- 17.4.1.4 The recordings' intended use is for the OPALCO membership and not for commercial purposes.
- 17.4.1.5 Members attending the board meeting acknowledge that they may be recorded.

17.5 RESPONSIBILITY

- 17.5.1 The General Manager shall ensure that all OPALCO meetings that are open to the membership receive proper notice on the OPALCO website so that members are aware of when and where meetings are scheduled.
- 17.5.2 The Board President, presiding director, or ~~any~~ designee shall ensure that conduct is respectful and orderly and shall preserve decorum at any meeting of the Cooperative. ~~Each director~~ All meeting participants shall cooperate with the President in ensuring that meetings are conducted in a respectful and orderly fashion. Interrupting or disturbing any person while speaking is contrary to this policy.
- 17.5.3 Any behavior that is deemed to be disruptive, distracting or threatens the physical safety of a meeting participant or property of the Cooperative may lead to such participant being required to leave the premises where the meeting is occurring. The President, presiding Director or designee shall make such determination.
- 17.5.4 Upon repeated violations of this policy, the President, presiding director or any designee may prohibit that individual from attending future meetings of the Cooperative, whether a formal meeting or other Co-op function. The duration of this prohibition shall be ~~a maximum of three (3) months~~ at the discretion of the President, presiding director or any designee based upon the severity and nature of the violation.
- 17.5.5 Members who have three (3) violations of this policy may be permanently excluded from attending all Cooperative meetings. Violations may occur as follows: the first violation may result in a maximum of a three-month prohibition; the second violation may result in a maximum of a six-month prohibition; and the third violation may result in permanently being prohibited from attending any meeting of the Cooperative. Any member who has been cited with three violations will not be eligible for any OPALCO position including serving on a Cooperative committee or the board of directors. The barred member may send written comments to the General Manager which may be presented during the subsequent Board meeting.

Foster Hildreth, General Manager

Board Approved: August 17, 2017

MEMORANDUM

November 9, 2018

TO: Board of Directors

FROM: Foster Hildreth

RE: EGC Candidate District 4 – Shaw (Action after Executive Session)

With the 2019 election approaching for Districts 3 and 4, the Elections & Governance Committee has received an application from a candidate for the open District 4 position.

Staff recommends that the Board approve the application subsequent to review and discussion in Executive Session.

MEMORANDUM

November 9, 2018

TO: Board of Directors

FROM: Foster Hildreth

RE: Tariff Revisions (First Read)

The tariffs have been edited to include the revenue increases to meet the revenue requirements as proposed in the 2019 budget. The second read will be brought to the Board in the December meeting with the goal of implementing the tariffs in the January billing period.

- R-19 Residential
- TOU-19 Time-of-Use Residential
- SCS-19 Small Commercial
- LCS-19 Large Commercial
- P-19 Pump
- EAP-19 Energy Assistance Program
- EC-19 Energy Conservation (NEW)
- ECA-19 Energy Adjustment Charge (NEW)
- POL-19 Private Outdoor Lighting
- LR-19 Line Retention
- NM-18 Unmetered Service (RETIRE)

This is the first reading; no action is necessary.

ORCAS POWER AND LIGHT COOPERATIVE

RECOMMENDED RATE STRUCTURE

	A.	B.	C.	D.	E.	F.	G.
	Residential	Present Rates	Recommended (Includes first phase of COSA balance)	Even % increase to all components	50% Revenue to Service Access/50% Revenue to Energy	Increase to Service Access Charge Only	Increase to Variable Charges only
1							
2	Service Access Rate (\$/Service/Month)	\$42.57	\$47.00	\$45.13	\$46.96	\$51.34	\$42.57
4	Energy Assistance Program (\$/kWh)	\$0.0005	\$0.0006	\$0.0006	\$0.0006	\$0.0006	\$0.0006
5	Energy Rates (\$/kWh)						
6	Summer Block 1 (≤ 2,000 kWh)	\$0.1007	\$0.1057	\$0.1068	\$0.1051	\$0.1007	\$0.1094
7	Summer Block 2 (2,000 kWh to 3000 kWh)	\$0.1141	\$0.1198	\$0.1210	\$0.1190	\$0.1141	\$0.1239
8	Summer Block 3 (> 3,000 kWh)	\$0.1353	\$0.1421	\$0.1435	\$0.1411	\$0.1353	\$0.1469
9	Winter Block 1 (≤ 4,000 kWh)	\$0.1007	\$0.1057	\$0.1068	\$0.1051	\$0.1007	\$0.1094
10	Winter Block 2 (4,000 kWh to 5,000 kWh)	\$0.1141	\$0.1198	\$0.1210	\$0.1190	\$0.1141	\$0.1239
11	Winter Block 3 (> 5,000 kWh)	\$0.1353	\$0.1421	\$0.1435	\$0.1411	\$0.1353	\$0.1469
12							
	Residential TOU	Present Rates	Recommended (Includes first phase of COSA balance)	Even % increase to all components	50% Revenue to Service Access/50% Revenue to Energy	Increase to Service Access Charge Only	Increase to Variable Charges only
13							
14	Service Access Rate (\$/Service/Month)	\$48.29	\$56.50	\$51.19	\$56.50	\$64.68	\$48.29
16	Energy Assistance Program (\$/kWh)	\$0.0005	\$0.0006	\$0.0006	\$0.0006	\$0.0006	\$0.0006
17	Energy Rates (\$/kWh)						
18	TOU Period 1 (6 AM - Noon)	\$0.1690	\$0.1752	\$0.1792	\$0.1752	\$0.1690	\$0.1813
19	TOU Period 2 (Noon - 6 PM)	\$0.1045	\$0.1083	\$0.1108	\$0.1083	\$0.1045	\$0.1121
20	TOU Period 3 (6 PM - 8 PM)	\$0.1690	\$0.1752	\$0.1792	\$0.1752	\$0.1690	\$0.1813
21	TOU Period 3 (8 PM - 6 AM)	\$0.0458	\$0.0475	\$0.0486	\$0.0475	\$0.0458	\$0.0491
22							
	Small Commercial (<20 kW)	Present Rates	Recommended (Includes first phase of COSA balance)	Even % increase to all components	50% Revenue to Service Access/50% Revenue to Energy	Increase to Service Access Charge Only	Increase to Variable Charges only
23							
24	Service Access Rate (\$/Service/Month)	\$60.53	\$65.60	\$64.17	\$65.60	\$70.55	\$60.53
25	Energy Assistance Program (\$/kWh)	\$0.0005	\$0.0006	\$0.0006	\$0.0006	\$0.0006	\$0.0006
26	Energy Rates (\$/kWh)						
27	Block 1 (≤ 5,000 kWh)	\$0.1025	\$0.1074	\$0.1087	\$0.1074	\$0.1025	\$0.1123
28	Block 2 (> 5,000 kWh)	\$0.1145	\$0.1199	\$0.1214	\$0.1199	\$0.1145	\$0.1254
29	Demand Rates (\$/kW)						
30	First 20 kW (Flat Rate)	\$5.94	\$6.22	\$6.30	\$6.22	\$5.94	\$6.50
31							
	Large Commercial (> 20kW)	Present Rates	Recommended (Includes first phase of COSA balance)	Even % increase to all components	50% Revenue to Service Access & Demand/50% Revenue to Energy	Increase to Service Access and Demand Rates Only	Increase to Energy Charge Only
32							
33	Service Access Rate (\$/Service/Month)	\$60.53	\$65.60	\$64.17	\$69.63	\$78.88	\$60.53
34	Energy Assistance Program (\$/kWh)	\$0.0005	\$0.0006	\$0.0006	\$0.0006	\$0.0006	\$0.0006
35	Energy Rates (\$/kWh)						
36	Block 1 (≤ 5,000 kWh)	\$0.0907	\$0.0946	\$0.0962	\$0.0942	\$0.0907	\$0.0976
37	Block 2 (5,000-150,000 kWh)	\$0.1005	\$0.1049	\$0.1066	\$0.1043	\$0.1005	\$0.1081
38	Block 3 (>150,000 kWh)	\$0.1341	\$0.1399	\$0.1422	\$0.1392	\$0.1341	\$0.1442
39	Demand Rates (\$/kW)						
40	Block 1 (≤ 300 kW)	\$3.66	\$3.82	\$3.88	\$4.22	\$4.77	\$3.66
41	Block 2 (> 300 kW)	\$5.50	\$5.74	\$5.83	\$6.33	\$7.17	\$5.50
42							
	Pumps	Present Rates	Recommended (Includes first phase of COSA balance)	Even % increase to all components	50% Revenue to Service Access/50% Revenue to Energy	Increase to Service Access Charge Only	Increase to Variable Charges only
43							
44	Service Access Rate (\$/Service/Month)	\$39.83	\$42.22	\$42.22	\$41.61	\$43.60	\$39.83
45	Energy Assistance Program (\$/kWh)	\$0.0005	\$0.0006	\$0.0006	\$0.0006	\$0.0006	\$0.0006
46	Energy Rates (\$/kWh)						
47	0 - 370 kWh	\$0.1059	\$0.1123	\$0.1123	\$0.1155	\$0.1059	\$0.1237
48	370 - 5,000 kWh	\$0.0919	\$0.0900	\$0.0975	\$0.1002	\$0.0919	\$0.1074
49	Over 5,000 kWh	\$0.1031	\$0.1093	\$0.1093	\$0.1124	\$0.1031	\$0.1205
50	Demand Rates (\$/kW)						
51	First 20 kW (Flat Rate)	\$1.10	\$1.17	\$1.17	\$1.20	\$1.10	\$1.28
52	Over 20 kW	\$3.65	\$3.87	\$3.87	\$3.98	\$3.65	\$4.26

1) Any per energy charge (\$ per kWh) above \$0.125 may induce fuel switching to propane, at today's San Juan County propane rates.

2) Assumes Block changes from Recommended Residential Scenario (Column C) to all rate periods in year

3) Columns C through E produce revenues equal to the Recommended Budget Option.

**ORCAS POWER AND LIGHT COOPERATIVE
TARIFF R – 18 19
RESIDENTIAL SERVICE**

NINETEENTH TWENTIETH REVISION – REPLACING EIGHTEENTH NINETEENTH REVISION

AVAILABILITY

Available to all small farm and home members, subject to the General Provisions hereunder.

TYPE OF SERVICE

Single-phase, 60 cycles, at available secondary voltage, equipment subject to automatic load management controls.

APPLICATION

Service for home and farm uses, such as cooking, lighting, heating, private docks not used for commercial purposes, etc. ~~Residences qualifying as “cottage industries” by San Juan County shall be served under this tariff.~~ Primary residential end-use shall be served under this tariff.

FACILITY SERVICE ACCESS CHARGE \$47.00 ~~\$42.57~~

ENERGY ASSISTANCE CHARGE ~~\$0.0005~~ \$0.0006 per kWh

ENERGY CHARGE

Summer				Winter			
Block 1	<= 2,000 kWh	\$.1007 \$0.1057	<= 4,000 kWh	\$.1007 \$0.1057	per kWh		
Block 2	2,001 – 3,000 kWh	\$.1141 \$0.1198	4,001 - 5,000 kWh	\$.1141 \$0.1198	per kWh		
Block 3	3,001 – 5,000 > 3,000 kWh	\$.1353 \$0.1421	> 5,000 kWh	\$.1353 \$0.1421	per kWh		

DEMAND CHARGE \$0.00

MINIMUM MONTHLY CHARGE

The minimum monthly charge, under the above rate, shall be ~~\$42.57~~ \$47.00 per month billing period or prorated if service is provided for less than a full month billing period.

WHOLESALE POWER COST ADJUSTMENT

A surcharge or credit may be applied to each billing for service under this tariff to reflect increases or decreases in the wholesale cost of power based on the rates charged by the Bonneville Power Administration, subject to Member Services Policy 29 – Rate Design.

GENERAL PROVISIONS

1. Member agrees to allow the cooperative, at its discretion, to install automatic load management controls.
2. The rated capacity of any motor served under this tariff shall be as follows:

- Motors up to 2 HP can operate at 115 volts.
 - Motors larger than 2 HP shall operate at 230 volts and are subject to requirements in Member Service Policy 3 *Technical Provisions*.
3. No single resistive loads (examples: ovens, heaters, kilns) over 15 kW shall come on line simultaneously.
 4. Non-resistive loads such as arc welders, fluorescent or mercury lamps, and induction heating furnaces are causes of harmonic distortion and may require corrective measures.
 5. See Member Service Policy 3 *Technical Provisions* for additional requirements.
 6. ~~Bed and breakfast establishments will be served under this rate if the owner or manager lives in a building served by this meter.~~ Primary end-use for residential purposes shall be served under this tariff.
 7. Summer Block is defined as May billing cycle period through September billing cycle period; Winter Block is defined as October billing cycle period through April billing cycle period.

Foster Hildreth, General Manager

Effective Date: January 2018 2019 Billing Period

ORCAS POWER AND LIGHT COOPERATIVE TARIFF TOU – 18 19

RESIDENTIAL TIME OF USE RATE

(Formerly known as "ESR-08 Energy Saving Rate")

~~TWENTIETH~~ **TWENTY-FIRST** REVISION – REPLACING ~~NINETEENTH~~ **TWENTIETH** REVISION

AVAILABILITY

Available to all small farm and home members otherwise served under the standard residential rate, and subject to the General Provisions hereunder.

TYPE OF SERVICE

Single-phase, 60 cycles, at available secondary voltage. Equipment subject to automatic load management controls.

APPLICATION

Service for small farms, homes, pools, greenhouses and other non-essential loads. Limited to single phase loads.

FACILITY CHARGE: ~~\$48.29~~ **\$56.50**

ENERGY ASSISTANCE PROGRAM ~~\$0.0005~~ **\$0.0006** per kWh

ENERGY CHARGE:

Period	Time	Cost per kWh
1	6:00 am – Noon	\$0.1690 \$0.1752 per kWh
2	Noon – 6:00 pm	\$0.1045 \$0.1083 per kWh
3	6:00 pm – 8:00 pm	\$0.1690 \$0.1752 per kWh
4	8:00 pm – 6:00 am	\$0.0458 \$0.0475 per kWh

DEMAND CHARGE: \$0.00

MINIMUM MONTHLY CHARGE

The minimum monthly charge, under the above rate, shall be ~~\$48.29~~ **\$56.50** per month or prorated if service is provided for less than a full month **billing period**.

WHOLESALE POWER COST ADJUSTMENT

A surcharge or credit may be applied to each billing for service under this tariff to reflect increases or decreases in the wholesale cost of power based on the rates charged by the Bonneville Power Administration, **subject to Member Services Policy 29 – Rate Design.**

GENERAL PROVISIONS

1. Member agrees to allow the cooperative, at its discretion, to install automatic load management controls.
2. The rated capacity of any motor served under this tariff shall be as follows:
 - i. Motors up to 2 HP can operate at 115 volts.
 - ii. Motors larger than 2 HP shall operate at 230 volts and are subject to requirements in Member Service Policy 3-Technical Provisions.
3. No single resistive loads (examples: ovens, heaters, kilns) over 15 kW shall come on line simultaneously.
4. Non-resistive loads such as arc welders, fluorescent or mercury lamps, and induction heating furnaces are causes of harmonic distortion and may require corrective measures.
5. Loads served under this tariff shall not be capable of being switched to another meter served under a different tariff.
6. Member agrees to be billed on this rate for a minimum of 12 billing periods.
7. See Member Services Policy 3 *Technical Provisions* for additional requirements.

Foster Hildreth, General Manager

Effective Date: January 2019 Billing Period

ORCAS POWER AND LIGHT COOPERATIVE

TARIFF SCS – 18-19

SMALL COMMERCIAL SERVICE

NINETEENTH ~~TWENTIETH~~ REVISION – REPLACING EIGHTEENTH ~~NINETEENTH~~ REVISION

AVAILABILITY

Available to all non-residential members using less than 20 kW in all of the preceding twelve (12) months, subject to the General Provisions hereunder.

TYPE OF SERVICE

Single-phase or three-phase, 60 cycles, at available secondary voltage, equipment subject to automatic load management controls.

APPLICATION

General Service for heating, lighting, etc., for marinas ~~for commercial use, and non-residential members.~~ **non-residential primary end-use.**

FACILITY ~~SERVICE ACCESS~~ CHARGE \$60.53 **\$65.60**

ENERGY ASSISTANCE PROGRAM \$0.0005 **\$0.0006** per kWh

ENERGY CHARGE Block 1 (~~≤~~ 5,000 kWh) @ \$0.1025 **\$0.1074** per kWh
Block 2 (>5,000 kWh) @ \$0.1145 **\$0.1199** per kWh

DEMAND CHARGE \$5.94 **\$6.22** per month **billing period (flat rate)**

MINIMUM MONTHLY CHARGE

The minimum monthly charge, under the above rate, shall be \$60.53 **\$65.60** per month **billing period** or prorated if service is provided for less than a full month **billing period**.

DETERMINATION OF BILLING DEMAND

The billing demand shall be the maximum kilowatt (**kW**) demand established by the member for any period of fifteen (15) consecutive minutes during the month **period** for which the bill is rendered as indicated or recorded by a demand meter ~~and adjusted for power factor as provided below.~~

~~POWER FACTOR ADJUSTMENT~~

~~Demand charges may be adjusted to correct for average power factors lower than 95%. Such adjustments will be made by increasing the measured demand 1% for each 1% by which the average power factor is less than 95% lagging.~~

WHOLESALE POWER COST ADJUSTMENT

A surcharge or credit may be applied to each billing for service under this tariff to reflect increases or decreases in the wholesale cost of power based on the rates charged by the Bonneville Power Administration, **subject to Member Services Policy 29 – Rate Design.**

GENERAL PROVISIONS

1. Member agrees to allow the cooperative, at its discretion, to install automatic load management controls.
2. ~~Except for bed and breakfast establishments, service under this rate shall not be provided to locations with occupied residential facilities unless such facilities are insignificant with respect to the business operations at the location.~~ **Primary end-use for commercial purposes shall be served by this tariff.**
3. ~~Bed and breakfast establishments will be served under this rate tariff if the owner or manager does not live in a building served by this meter.~~
3. The rated capacity of any motor served under this tariff shall be as follows:
 - Motors up to 2 HP can operate at 115 volts.
 - Motors larger than 2 HP (single phase) are subject to requirements in Member Service Policy 3-Technical Provisions.
4. No single resistive 3-phase loads (examples: ovens, heaters, kilns) of over 45kW shall come on line simultaneously.
5. Non-resistive loads such as arc welders, fluorescent or mercury lamps, and induction heating furnaces are causes of harmonic distortion and may require corrective measures.
6. See Member Service Policy 3-*Technical Provisions* for additional requirements.

Foster Hildreth, General Manager

Effective Date ~~January 2018~~ **2019** Billing Period

**ORCAS POWER AND LIGHT COOPERATIVE
TARIFF LCS –18 19
LARGE COMMERCIAL SERVICE**

~~TWENTY-FIRST~~ **TWENTY-SECOND** REVISION – REPLACING ~~TWENTIETH~~ **TWENTY-FIRST**
REVISION

AVAILABILITY

Available to all non-residential members using more than 20 kW in any one or more of the preceding twelve (12) months, subject to the General Provisions hereunder.

TYPE OF SERVICE

Single-phase or three-phase, 60 cycles, at available secondary voltage, equipment subject to automatic load management controls.

APPLICATION

General Service for heating, lighting, etc., ~~marinas for commercial use, and non-residential members.~~ **for non-residential primary end-use.**

FACILITY ~~SERVICE ACCESS~~ CHARGE ~~\$60.53~~ **\$65.60**

ENERGY ASSISTANCE PROGRAM ~~\$0.0005~~ **\$0.0006** per kWh

ENERGY CHARGE Block 1 (≤5,000 kWh) @ ~~\$0.0907~~ **\$0.0946** per kWh
Block 2 (>5,000 – 150,000 kWh) @ ~~\$0.1005~~ **\$0.1049** per kWh
Block 3 (>150,000 kWh) @ ~~\$0.1341~~ **\$0.1399** per kWh

DEMAND CHARGE Block 1 (≤300 kW) ~~\$3.66~~ **\$3.82** per kW
Block 2 (>300 kW) ~~\$5.50~~ **\$5.74** per kW

MINIMUM MONTHLY CHARGE

The minimum monthly charge, under the above rate, shall be ~~\$60.53~~ per month or prorated if service is provided for less than a full month.

DETERMINATION OF BILLING DEMAND

The billing demand shall be the maximum kilowatt (**kW**) demand established by the member for any period of fifteen (15) consecutive minutes during the month **period** for which the bill is rendered as indicated or recorded by a demand meter ~~and adjusted for power factor as provided below.~~

~~POWER FACTOR ADJUSTMENT~~

~~Demand charges may be adjusted to correct for average power factors lower than 95%. Such adjustments will be made by increasing the measured demand 1% for each 1% by which the average power factor is less than 95% lagging.~~

WHOLESALE POWER COST ADJUSTMENT

A surcharge or credit may be applied to each billing for service under this tariff to reflect increases or decreases in the wholesale cost of power based on the rates charged by the Bonneville Power Administration, subject to Member Services Policy 29 – Rate Design.

GENERAL PROVISIONS

1. Member agrees to allow the cooperative, at its discretion, to install automatic load management controls.
2. ~~Except for bed and breakfast establishments, service under this rate shall not be provided to locations with occupied residential facilities unless such facilities are insignificant with respect to the business operations at the location.~~ Primary end-use for commercial purposes shall be served by this tariff.
3. ~~Bed and breakfast establishments will be served under this rate tariff if the owner or manager does not live in a building served by this meter.~~
3. The rated capacity of any motor served under this tariff shall be as follows:
 - Motors up to 2 HP can operate at 115 volts.
 - Motors larger than 2 HP (single phase) are subject to requirements in Member Service Policy 3 *Technical Provisions*.
4. No single resistive 3-phase loads (examples: ovens, heaters, kilns) of over 45kW shall come on line simultaneously.
5. Non-resistive loads such as arc welders, fluorescent or mercury lamps, and induction heating furnaces are causes of harmonic distortion and may require corrective measures.
6. See Member Service Policy 3-*Technical Provisions* for additional requirements.

Foster Hildreth, General Manager

Effective Date January 2018 2019 Billing Period

ORCAS POWER AND LIGHT COOPERATIVE

TARIFF P – 18 19

PUMP SERVICE

TWENTY-FIRST TWENTY-SECOND REVISION – REPLACING TWENTIETH TWENTY-FIRST REVISION

AVAILABILITY

Available to all members, subject to the General Provisions hereunder.

TYPE OF SERVICE

Single-phase, 60 cycles, at available secondary voltage, equipment subject to automatic load management controls.

APPLICATION

Service for **exclusively** pumping water for domestic use and/or irrigation.

FACILITY SERVICE ACCESS CHARGE ~~\$39.83~~ **\$42.22**

ENERGY ASSISTANCE PROGRAM ~~\$0.0005~~ **\$0.0006** per kWh

ENERGY CHARGE	Block 1 0-370 kWh @	\$0.1059 \$0.1123 per kWh
	Block 2 371-5,000 kWh @	\$0.0919 \$0.0900 per kWh
	Block 3 Over 5,000 kWh @	\$0.1034 \$0.1093 per kWh

DEMAND CHARGE First 20 kW (flat rate) ~~\$1.10~~ **\$1.17**
Over 20 kW ~~\$3.65~~ **\$3.87** per kW

MINIMUM MONTHLY CHARGE

The minimum monthly charge, under the above rate, shall be ~~\$39.83~~ **\$42.22** per month **billing period** or prorated if service is provided for less than a full month **billing period**.

WHOLESALE POWER COST ADJUSTMENT

A surcharge or credit may be applied to each billing for service under this tariff to reflect increases or decreases in the wholesale cost of power ~~based on the rates charged by the Bonneville Power Administration,~~ **subject to Member Services Policy 29 – Rate Design.**

GENERAL PROVISIONS

1. All pumps served under this tariff shall be metered separately.
2. The rated capacity of any motor served under this tariff shall be as follows:
 - Motors up to 2 HP can operate at 115 volts.
 - Motors larger than 2 HP shall operate at 230 volts and are subject to requirements in Member Service Policy 3-Technical Provisions.
3. See Member Service Policy 3-Technical Provisions for additional requirements.

Foster Hildreth, General Manager

Effective Date: January 2018 **2019** Billing Period

ORCAS POWER AND LIGHT COOPERATIVE

TARIFF EAP – 18 19

ENERGY ASSIST PROGRAM

SECOND REVISION – REPLACING FIRST VERSION

AVAILABILITY

Available to low-income members, subject to the General Provisions hereunder, served under the current Tariff R *Residential Service*, and the provisions therein.

TYPE OF SERVICE

Electric service under the current Tariff R *Residential Service*.

APPLICATION

Residential homes with year-round low-income occupants being served by a standard residential service.

ENERGY ASSISTANCE CHARGE \$0.0005 .0006 per kWh

ENERGY ASSIST CREDIT

Household Size	Monthly Credit
1	(\$25.00)
2	(\$31.00)
3	(\$37.00)
4	(\$43.00)
5	(\$49.00)
6+	(\$55.00)

MINIMUM MONTHLY CREDIT

The minimum monthly credit, under the above rate, shall be (\$25.00). No refunds, or bills under \$0.00, will be issued based on participation in the Energy Assist Program.

SUBJECT TO AVAILABLE FUNDING

The Energy Assist Credit is pending available funding through the Energy Assist Charge in each related tariff, and other funding sources as approved by the Board of Directors.

GENERAL PROVISIONS

1. Active eligible members must complete and sign an Energy Assist Application, and provide documentation that the low-income household member has been qualified for, and has recently received, benefits under another endorsed low-income program.
2. Reapplication will be required annually.

Foster Hildreth, General Manager

Effective Date: January 2018 2019 Billing Period

ORCAS POWER AND LIGHT COOPERATIVE TARIFF RIDER – EC ENERGY CONSERVATION CHARGE

AVAILABILITY

Service under this Rider shall be available in all territory served by the cooperative (OPALCO) and shall be subject to OPALCO's established tariffs and policies. This Rider is an optional and voluntary tariff available to members who take service under any rate schedule for eligible energy efficiency improvements (upgrades) within the OPALCO service territory. It shall not be a requirement that the structure be all-electric. Projects that address upgrades to existing buildings deemed unlikely to be habitable or to serve their intended purpose for duration of service charges will not be approved unless other funding can affect necessary repairs.

APPLICATION

A monthly Energy Conservation (EC) charge will be assigned to any meter located where upgrades are installed. Members occupying the location of the meter shall pay the EC charge until all OPALCO costs have been recovered. OPALCO will recover the costs of its investments, including any fees allowed, in this tariff. Charges will be set for a duration not to exceed the estimated life of the pre-approved upgrades or the length of a full parts and labor warranty, whichever is less and in no case longer than ten (10) years. The EC charge and duration of payments will be included in the Efficiency Conservation Agreement between OPALCO and the member.

GENERAL PROVISIONS

ENERGY CONSERVATION AGREEMENT TERMS

1. No up-front payment is required by participating members. The initial cost of approved energy efficiency measures will be paid by OPALCO, up to the maximum amount established for each EC measure.
2. The repayment obligation shall be assigned to the meter at the premises and will survive changes in ownership and/or tenancy.
3. Until cost recovery for upgrades at a meter location is complete, the terms of this tariff shall be binding on the metered structure and any future member who shall receive service at that location.
4. Program costs shall be recovered through a monthly EC charge on the utility bill.
5. Without regard to any other OPALCO rules or policies, the EC charge shall be considered as an essential part of the members bill for electric service, and OPALCO may disconnect the associated electric meter for non-payment of EC charge under the same provisions as for any other electric service.
6. OPALCO may make an incentive payment for program participation that is less than or equal to the value of the upgrades to the Cooperative.
7. A member's and landlord's (if applicable) signature on the EC Agreement shall indicate acceptance of this tariff.
8. OPALCO will be responsible for estimating resource savings and developing a Conservation Plan upon which the EC charge will be based, detailed in this tariff.
9. Once OPALCO's costs for upgrades at a specified location have been recovered, the monthly charge shall no longer be billed.

CONSERVATION PLAN

The Conservation Plan (the Plan) will be developed by OPALCO and specify measures installed by OPALCO to the prospective member. The Plan includes:

- Estimated Resource Savings — The modeled change(s) in costs of resources consumed at the premise attributable to the efficiency measure(s) proposed. The Cooperative will be solely responsible for savings estimates.
- EC Charge — The charge to be included on Member's utility bill will be based on the actual cost of the proposed measure(s). The Cooperative will be solely responsible for calculating the EC charge utilizing its standard economic model of discounted cash flows. To the extent applicable, OPALCO will incorporate rebates/discounts into the calculation of the EC charge.
- The annual interest rate used to calculate the EC charge shall be no more than two percent (2%).
- Administration Fee — Applicants (members or landlords) will be charged a \$50.00 Administration Fee for completed project measure installations. This fee may be included in the Project Cost.
- Number of Payments — The number of monthly periods for which the EC charge will apply at the premises. Unless otherwise specified, the EC charge shall not exceed the estimated life of the measure or ten (10) years, whichever is less.
- Project Cost - the total actual cost of the energy conservation project being financed, for the purpose of calculating the EC charge. Project cost will include (1) the final amount billed by the contractor, and paid by OPALCO, subject to the terms of this policy and the EC Agreement, (2) the administration fee, (3) applicable county filing fees and (4) optional decommissioning of a fossil fuel system. Energy snapshot fees may not be included in the Project Cost.

APPROVED CONTRACTOR

Should the member determine to proceed with implementing the Plan, OPALCO shall determine the appropriate monthly Charge as described above. The member shall sign the EC Agreement and select a certified contractor.

QUALITY ASSURANCE

When the energy efficiency upgrades are completed, the contractor shall be paid by OPALCO, following on-site, telephone, or written report inspection and approval of the installation by the member and cooperative. OPALCO does not guarantee the performance of the upgrade appliance or the quality of work of any contractor.

UNECONOMIC MEASURES

A member may elect to "buy down" the cost of implementing an efficiency measure so that the EC charge will be less than the average estimated monthly savings. In this case OPALCO must be notified in advance of the payment to appropriately process the payment.

NEW AND EXISTING STRUCTURES

A member may utilize this Rider to install high efficiency equipment or measures in new structures. At its sole discretion, OPALCO may determine a property is not eligible for the program and does not qualify for this Rider if:

- The structure has an expected life shorter than the payback period, or
- The structure does not meet applicable public safety or health codes.

RESPONSIBILITIES

Responsibilities, understandings, and authorizations of members, OPALCO, landlord (if applicable) and Participating Contractor shall be outlined in written agreements, notifications and disclosures/consents.

TRANSITION IN ROLES

Payments due pursuant to an Energy Conservation Agreement are based upon the meter serving each property participating under this tariff. All responsibility for outstanding EC obligations and payments belong to the member or any successor party to the member, landlord or tenant change, including any subsequent owner, tenant, or otherwise. Note, to the extent necessary, each member maintains all disclosure obligations. For example: If a person sells a home, they are required to notify the purchaser of the tariff obligation. Failure to provide such notification shall not affect the cooperative's ability to continue billing pursuant to this tariff.

OTHER

1. This Rider only applies to measures permanently installed as fixtures at the premises. Portable efficiency products do not qualify under this Rider. OPALCO will solely determine eligibility of measures or products.
2. Premises in which the measures will be installed must be permanently anchored to a foundation.
3. At its sole discretion, OPALCO may determine the maximum program investment in any year.
4. OPALCO will determine the eligibility of a member based under the member's bill payment history with the cooperative, projected energy savings and program capacity.

Foster Hildreth, General Manager

Effective Date: January 2019 Billing Period

ORCAS POWER AND LIGHT COOPERATIVE TARIFF – ECA ENERGY CHARGE ADJUSTMENTS (NEW)

ENERGY CHARGE ADJUSTMENTS (ECA)

A variable true-up adjustment (surcharge or credit) will be appear as a line item on member bills to reflect increases or decreases in the power sales due to weather. The adjustment amount will be solely based on power costs and calculated by comparing budgeted vs. actual power cost per kWh sold. The purpose of the ECA is address the lack of predictability in weather forecasting for kWh sales and revenue as power costs represent between 25% to 30% of annual revenue requirements. The ECA includes two adjustment mechanisms:

- 1) An automated monthly reoccurring true-up (surcharge or credit) to be applied to each member billing on a kWh basis, which adjusts for increases or decreases in the cost of power purchased as compared to the budgeted vs. actual cost per kWh sold (see below for calculation); and
- 2) On an as-needed basis and subject to board approval, a variable mechanism that balances the fluctuation in revenues to meet strategic directives.

For the purposes of calculating the ECA, Total Purchase Power Cost shall mean power purchases and credits from all power suppliers; excluding credits or purchases from all suppliers that may be applied directly to particular Members; including all power supply related costs but not limited to: monthly fixed charges, electric power production costs, fuel costs, market power purchases, transmission costs, substation costs, costs for any facilities that will be billed to the Cooperative by power suppliers, power supplier surcharges for programs such as, but not limited to, energy efficiency and demand response programs, other power supply related costs.

The Budget Cost of Power shall equal the total projected future cost of power at the time the current Cooperative rates were established (power cost embedded within current rates) divided by the total projected future kWh sales at the time the current Cooperative rates were established (kWh sales used to develop current rates).

Monthly ECA Factor

The automated monthly charges on member bills shall be increased or decreased on a uniform per-kWh basis computed monthly as follows:

$$ECA = \frac{\text{Actual Power Cost}}{kWh_{sold}} - \frac{\text{Budgeted Power Cost}}{kWh_{sold}} + \frac{\text{Prior Month Uncollected}}{kWh_{sold}}$$

The figures for the above variables can be found in financial statements on the Sales and Usage Report

Where:

ECA	Energy Cost Adjustment (\$/kWh) to be applied to energy sales for the billing period.
kWh_{sold}	Total estimated energy sales for the billing period (excluding kWh sales associated with direct recovery of power cost charges or credits).
Actual Power Cost	Total purchased power cost from all suppliers for the billing

	period as defined above.
Budgeted Power Cost	Total estimated purchased electricity costs included in the Cooperative's base rates.
Prior Month Uncollected	Difference in the total ECA revenue collected from the prior month and the total ECA calculated collection for the prior month.

Discretionary Adjustment

On an as-needed basis and subject to board approval, a variable (kWh) ECA adjustment that balances the fluctuation in revenues to meet strategic directives.

Foster Hildreth, General Manager

Effective Date: January 2019 Billing Period

ORCAS POWER AND LIGHT COOPERATIVE

TARIFF POL –18 19

PRIVATE OUTDOOR LIGHTING

~~TWENTIETH~~ TWENTY-FIRST REVISION – REPLACING ~~NINETEENTH~~ TWENTIETH REVISION

AVAILABILITY

New service under this tariff is not available after March 1, 1998. Those members receiving service under this tariff prior to March 1, 1998 may continue to do so.

TYPE OF SERVICE

OPALCO will own, maintain and operate suitable fixtures on brackets, with refractors and controls, and supply energy for sodium vapor lamps at locations agreed upon with the member, the service distance not to exceed 150 feet/2 wire, or 300 feet/3 wire.

APPLICATION

Non-metered or metered street, yard or security lighting service.

BILLING CHARGE *~~\$2.55~~ \$2.70 per month

FIXTURE CHARGE ~~\$10.89~~ \$11.54 per month

ENERGY CHARGE ** 100 Watts ~~\$4.38~~ \$4.64 per month
200 Watts ~~\$8.89~~ \$9.42 per month

*Applies only when not included on a bill for other energy usage.

**Applies only when energy is not metered.

WHOLESALE POWER COST ADJUSTMENT

A surcharge or credit may be applied to each billing for service under this tariff to reflect increases or decreases in the wholesale cost of power based on the rates charged by Bonneville Power Administration, subject to Member Services Policy 29 – Rate Design.

GENERAL PROVISIONS

1. All lamp replacements and other maintenance will be provided by OPALCO, except that lamps and fixtures broken by vandalism will be charged to the member.
2. The member shall notify OPALCO if a lamp does not operate. OPALCO agrees to repair lamps as soon as possible, but, in any event, within five (5) working days.
3. A timing device and/or photo electric cell may be installed by OPALCO in order to limit the time interval that the lamp is turned on each night.
4. During the periods of energy shortage, lamps may be disconnected by request of either the cooperative or member, with no charge to member. The member will not be charged for the period the light has been disconnected.

Effective Date: January 2018 2019 Billing Period
Foster Hildreth, General Manager

ORCAS POWER AND LIGHT COOPERATIVE

TARIFF LR – 18 19

LINE RETENTION

~~EIGHTEENTH~~ **NINETEENTH** REVISION – REPLACING SEVENTEENTH **EIGHTEENTH** REVISION

AVAILABILITY

Available for individual residential, marina, and general service accounts where the primary and transformer only serve one member and the removal of the equipment will not affect the service to other members, and/or no service has been taken for a period of twelve (12) months.

TYPE OF SERVICE

Single-phase, 7200 GrdY primary or 120/240 secondary voltage.

APPLICATION

Payment of the line retention rate will ensure that the facilities remain in place for future use.

FACILITY ~~SERVICE ACCESS~~ CHARGE ~~\$23.37~~ **\$24.77**

ENERGY CHARGE

No energy may be used under this rate.

MINIMUM MONTHLY CHARGE

The monthly charge, under the above rate, shall be ~~\$23.37~~ **\$24.77** per month **billing period** or prorated if service is provided for less than a full month **billing period**.

GENERAL PROVISIONS FOR MEMBERS ON LINE RETENTION

1. The above rate is not available where energy is being used or where a meter is installed.
2. OPALCO normally retires and/or removes facilities that have not been used for twelve (12) months. Payment of the line retention rate will ensure that the facilities remain in place for future use. If OPALCO removes any equipment and the member wants it reinstalled, the member shall be required to apply for a new service or line extension in accordance with the current member service policy.
3. Members who have discontinued service for a period of twelve (12) months or have made a formal request for service and have not connected to the system after a period of twelve (12) months are subject to the line retention rate, provided that OPALCO has determined that the facilities are causing ongoing expenses, such as line losses or line maintenance to the system.

Foster Hildreth, General Manager

Effective Date: January 2018 **2019** Billing Period

~~TARIFF NM- 18~~
~~UNMETERED SERVICE~~
~~ELEVENTH REVISION — REPLACING TENTH REVISION~~

~~Available to small fixed loads such as cable television amplifiers.~~

~~Single-phase, 60 cycles, 120 volts, 20 amps or less.~~

~~For electrical loads that are unchanging during the day and operate at 120 volts with 20 amps or less.~~

~~**FACILITY CHARGE:** \$42.57~~

~~ENERGY ASSISTANCE PROGRAM~~ \$0.0005 per kWh

ENERGY CHARGE: All kWh @ \$0.1007

~~The minimum monthly charge, under the above rate, shall be \$42.57 per month or prorated if service is provided for less than a full month.~~

~~A surcharge or credit may be applied to each billing for service under this tariff to reflect increases or decreases in the wholesale cost of power or transmission charged by the Bonneville Power Administration.~~

- ~~1. The member must install a disconnect switch that can be locked by OPALCO.~~
- ~~2. The member must provide suitable fusing to protect their equipment.~~
- ~~3. Kilowatt hour usage shall be calculated based on the device drawing rated current (as determined by the manufacturer's recommended fuse size) at 120 volts at unity power factor for 720 hours per month.~~

Effective Date: January 2018 Billing Period
Foster Hildreth, General Manager

November 9, 2018

To: Board of Directors

From: Foster Hildreth, General Manager

Re: Energy Block Analysis

During the October Board meeting, staff reaffirmed the Board's conclusions related to discussions around the COSA and Rates Work Sessions. Staff had recommended the continuation of inclining energy blocks for summer and winter – The reasoning behind the current block structure was to:

- Encourage all electric homes (fuel switching)
- Encourage energy efficiency
- Collect appropriate revenues from seasonal services

Additionally, these blocks provide a structure for the future to provide a consistent transition to time-of-use blocks, once our metering infrastructure allows.

During the discussion, the Board asked for more analysis around the impact energy blocks have on member bills and revenue. Our analysis reveals that the removal of the energy block would result in a revenue shortfall of ~\$100k annually from the higher energy users (based on 2018 rates). Based on the chart below, the existence or lack of energy blocks have de minimis impact on our average members. The table below shows the results of staff analysis for various user types, with associated typical monthly usage, and monthly and annual billing variations. We show billing for the current energy block rate as well as for no block, removing the last (highest) tier, and removing seasonal variation (using winter only).

Typical/ Avg User	Avg. kWh per month	Average Monthly Bill				Average Annual Bill			
		Current	No Block	Remove Last	Remove Seasonal	Current	No Block	Remove Last	Remove Seasonal
Residential	989	\$142.59	\$143.18	\$142.88	\$142.78	\$1,711	\$1,718	\$1,715	\$1,713
PAL	821	\$125.58	\$126.08	\$125.83	\$125.75	\$1,507	\$1,513	\$1,510	\$1,509
EAP	887	\$132.34	\$132.87	\$132.61	\$132.52	\$1,588	\$1,594	\$1,591	\$1,590
Seasonal	952	\$138.89	\$139.46	\$139.18	\$139.08	\$1,667	\$1,674	\$1,670	\$1,669
Non-Seasonal	1,118	\$155.64	\$156.31	\$155.98	\$155.86	\$1,868	\$1,876	\$1,872	\$1,870
Heavy	4,598	\$527.52	\$510.65	\$520.96	\$528.43	\$6,330	\$6,128	\$6,251	\$6,341
Light	513	\$94.44	\$94.75	\$94.60	\$94.54	\$1,133	\$1,137	\$1,135	\$1,134

As can be seen, for most members, there is little billing impact across the variants. Staff continues to recommend leaving the energy blocks as is, providing a structure for the future that paves the way for a transition to time- of-use blocks, once our metering infrastructure allows.

The following is a summary timeline of the steps necessary to the future rate planning:

- a. ✓ Strategic Long-Range Vision: February 2018
- b. ✓ Long-Range Capital Projects Plan: March 2018 Work Session (March 16th)
- c. ✓ Long-Range Financial Plan (Equity, Cash, Debt): May 2018
- d. ✓ Cost of Service Analysis (COSA): August 2018
- e. ✓ Rate Structure Review that Supports the COSA: September 21, 2018 Work Session
- f. ✓ Rate Structure Approval: October 2018 – December 2018 (with Budget)

Staff recommends keeping the energy blocks that are currently in place.

MEMORANDUM

November 09, 2018

To: Board of Directors

From: Foster Hildreth, General Manager

Re: OPALCO 2018 Third Quarter Financial Report

Please see attached the full 2018 3rd quarter financial report. Included in the report package are the Statement of Revenues and Margins (along with a notable driver analysis), Balance Sheet, Statement of Cash Flows (GAAP), and capital projects budget tracking.

The warmer weather, and resulting lower kWh sales, experienced through Q3 of 2018 is the primary driver of the overall revenue variance of 3% (\$685k) lower than budgeted. This was partially offset by the related decrease in purchased power of 2% (\$161k). All combined resulted in a decreased margin of (\$342k).

For more detail, please note the following key points:

- Through Q3, YTD Heating Degree Days (HDD) were down ~5% below normal budgeted levels (Actual of 828 vs. budget of 874). Actual kWh sales were 8.2M kWh below budget (156M vs. budget of 148M). We expect weather and heating fluctuations to produce dramatic sales revenue volatility and have budgeted based on those assumptions. We will continue to monitor revenue and expenses closely.
- Q3 YTD power purchases were down \$161k due to lower kWh consumption. Actual kWh purchases were 7M kWh below budget (156M vs. budget of 163M).
- The cost of purchased power (\$ / kWh) has increased >11% through Q3 2018 vs. 2017.
- Passthrough BPA surcharges are offsetting otherwise bill savings from lower kWh purchases. In the period June-Sept 2018 OPALCO has paid ~\$46K in unbudgeted '**BPA spill surcharge**' which relates to BPA **recovering costs from being forced to spill** their dam by court order during the spring of 2018. We've also paid \$15K in '**Oversupply Mgmt Protocol**' which is BPA **recovering costs from having to avoid spilling**, reducing total dissolved gas (TDG) in the water which helps the fish and BPA paying other non-hydro generators to 'not generate' in which case they pass that cost down to their members.
- Excluding purchased power, Q3 YTD operating expenses were approximately \$546k under budgeted amounts.
- RUS borrowings were accelerated during the year due to the warmer weather and lower revenue experienced. Outstanding debt balance as of Sept 30th is higher than budget due primarily to (a) RUS advance payments being curtailed in 2018 vs. budget due to

lower revenues, delay in establishing new RUS loan facility, and partially accelerated capital spending and (b) timing of RUS mortgage payments (Q3 & Q4 principal payments are due in Q4). Please note that staff will be recommending in the November board materials to borrow additional funds to offset the increased capital spending in Q4 2017 (submarine cable and Decatur tap) and less revenue associated with lower kWh sales in 2018 (weather).

GENERAL MANAGER'S REPORT November 2018

DASHBOARDS

Please review the dashboards at <https://www.opalco.com/dashboards>. Note that all the dashboards are within board approved strategic parameters.

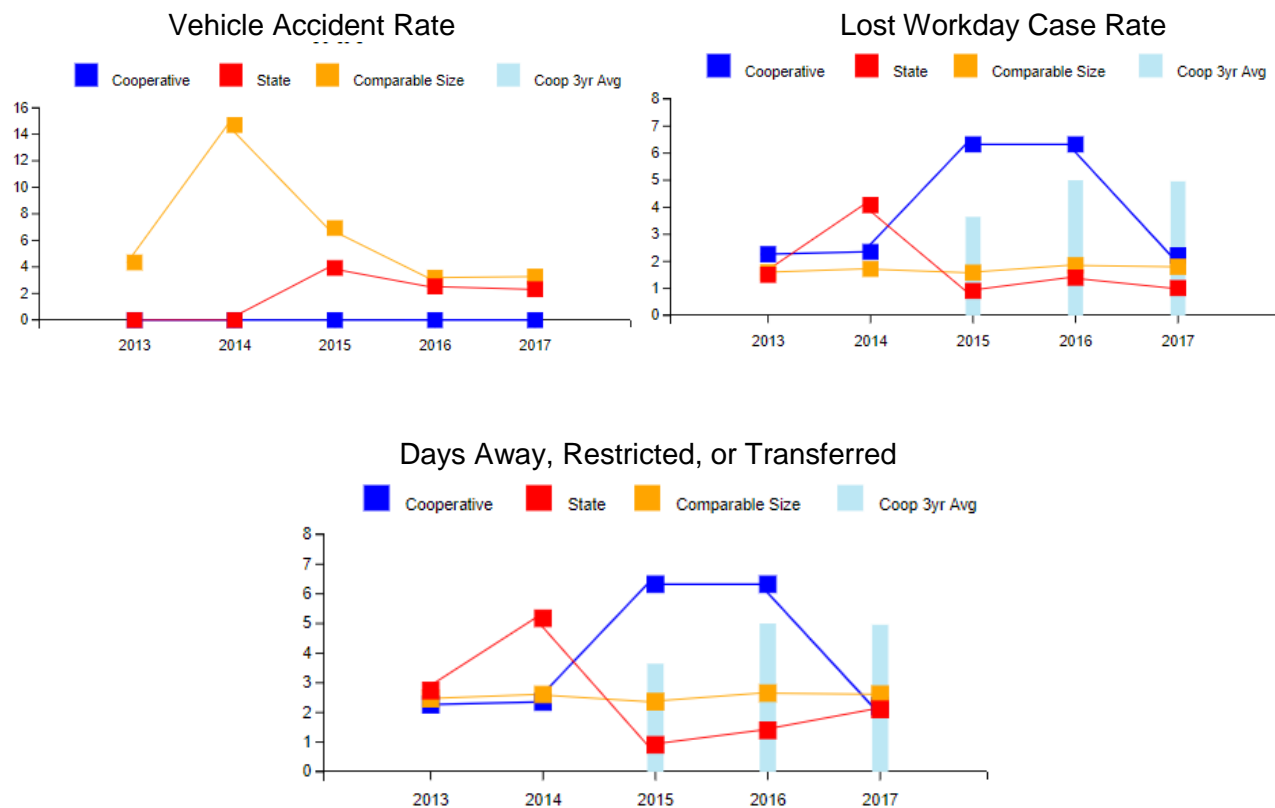
ENGINEERING, OPERATIONS, AND TECHNICAL SERVICES

WIP

As of November 7, there are 361 work orders open totaling \$9.47M. Operations has completed construction on 109 work orders, totaling \$4.35M.

Safety

A NRECA Rural Electric Safety Achievement Program (RESAP) inspection team (2 from Columbia REA and 2 from Elmhurst Mutual P&L Cooperative) conducted an inspection of the Eastsound facility, various underground installations and the Blakely Substation construction site. They interviewed the Eastsound district crew and Eastsound Headquarters personnel.



Jeff Myers has been promoted to Manager of Safety Services and has handed the safety coordination and training over to John Spain with Columbia REA. John conducted the First Aid/CPR renewal training for all personnel. The total hours worked without a loss time accident is 109,300.

Grid Modernization Projects

1) Decatur Battery Energy Storage System (ESS) – WA DOC CEF2 Grid Modernization

The RFP has been transmitted. Bidders will be selected in January for an anticipated contract execution in February.

2) Community Vehicle-to-Grid (VTG) – WA DOC CEF3 RD&D

Staff is working through the final matching grant application submittal on November 13th.

3) Lopez Microgrid – WA DOC CEF3 Grid Modernization

Based on OPALCO's phase one submittal for CEF3 Grid Mod, WA DOC is allowing OPALCO to proceed with the next phase two application for matching grant funds.

Redundant Feed to Eastsound Village

1) Decatur Tap and Substation

COMPLETE. The 1951 submarine cable leased from BPA has been taken out of service along with the Lopez stepdown transformer feeding it. These facilities will be decommissioned in 2019.

2) Blakely Substation

Project schedule delayed due to barge availability and equipment issues. Work continues on Blakely with available equipment and materials and completion estimated by mid-December.

3) Olga Substation and Feeder Upgrades to Eastsound

Olga Substation is being reconfigured to accept 69 kV. Crescent Beach re-conductor projects will be completed in mid-November.

FINANCE

Staff will be presenting for Board discussion the following items in November:

- 2018 Q3 financial statements
- 2018 Capital Credit General Retirement
- 2018 Additional loan draw request
- 2019 Budget

MEMBER SERVICES

Energy Assistance

During October 2018, 321 members received ~\$9.6k from the Energy Assist program, compared to 284 accounts receiving ~\$7.3k worth of assistance during October 2017. The PAL committee will be meeting and approving applications for the first time this heating season in November.

Energy Savings

Members applied for 28 rebates and received ~\$23k in incentives, including 9 rebates for beneficial electrification projects totaling ~\$10.3k. Staff has been working with Washington State University (WSU) to finalize the Renewable Energy System Incentive Program (RESIP) and legacy Renewable Energy Cost Recovery Incentive Program (RECRIP) payments. The incentive payments are typically paid during the month of August or September, however, since it was the first year of the program administration for WSU the payments were delayed until mid-November. The combined total payout to all participants will be ~\$216k. All applicants, including the members who were wait-listed will receive a payment.

Community Solar

During the October billing cycle, the Decatur Community Solar array produced 30,640 kWh, or ~4 kWh per solar unit. A total of ~\$2.7k was distributed to 272 accounts including an additional \$277 for the PAL

and Energy Assist programs. The array production was in line with expectations and the average bill credit in October was ~\$10 (based on a member purchase of 10 Solar Units). All community solar participants will be receiving a \$24 per solar unit rebate in November after OPALCO receives an award from the USDA Renewable Energy for America Program (REAP).

COMMUNICATIONS

Elections / Nominations

Staff are supporting the EGC in their effort to cultivate candidates for the 2019 election for Lopez and Shaw districts. EGC committee met on October 30th to start the process. Bill Severson is the committee chair for 2019. All candidates are vetted for eligibility based on the bylaws. The timeline is:

- Nominations portal active: December 1
- First round of nominations due: January 9
- EGC review and vetting of potential candidates: January 10 - 22
- EGC slate due: January 22
- Staff posts candidate names: January 23
- Nominations by petition due: February 13
- Vetting of nominees by petition: February 14
- Complete list of candidates posted: February 15
- Candidate Forums: March 4-8
- Election opens and ballots e/mailed: March 11
- Election closes: April 10 @ 10:00 am PT
- Election results announced: April 13

Communication and outreach activities begin in November and will utilize all available channels.

Website Improvements

An updated newsroom (www.opalco.com/news) is now live; and an updated blog branded “This Electric Life” (<http://energysavings.opalco.com/energy-savings-blog/>) is in progress as we gear up for the fuel switching campaign in 2019 (Switch it Up!).

Staff Field Day

On October 26th, OPALCO staff had safety meetings and then went through cyber security training. After lunch, a send off celebration for Bev Madan’s retirement included cake, gifts and some storytelling.



National Cooperative Month: Co-ops Vote!

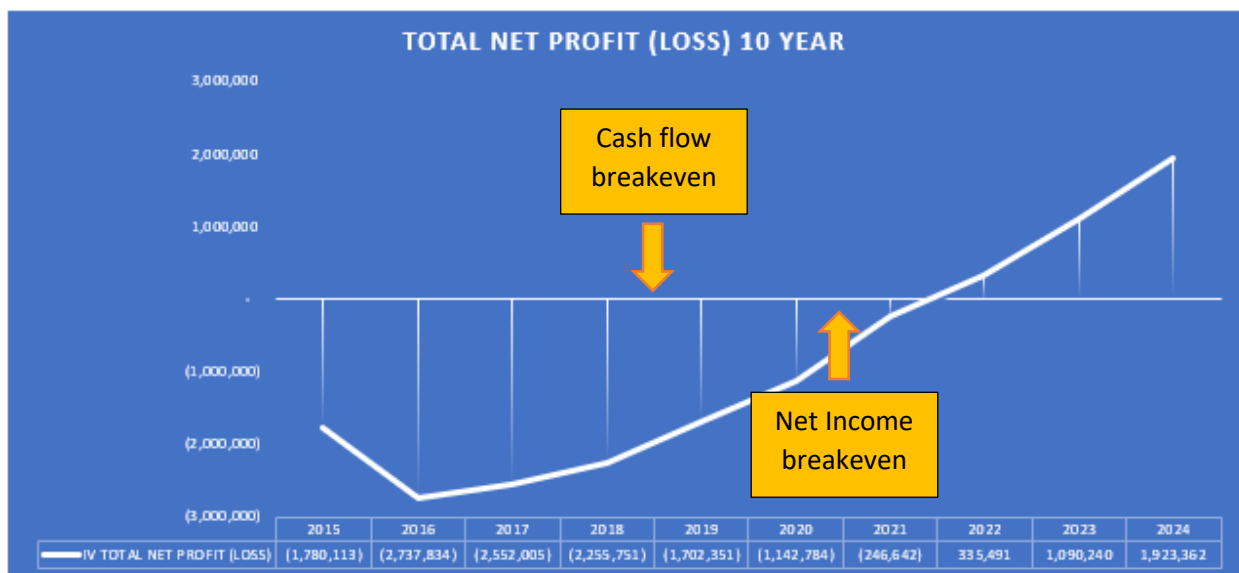
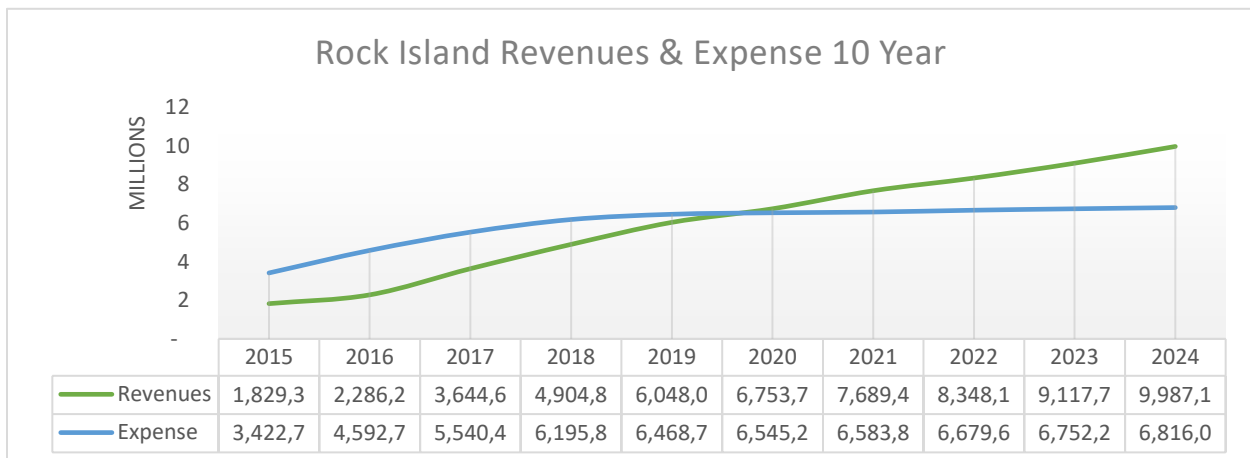
All three OPALCO offices celebrated co-op month in October with open house events which members enjoyed. The food co-ops on Orcas and San Juan joined us in spreading the NRECA’s “Co-ops Vote” message, registering voters and passing out “Co-ops Vote” stickers and pens. At the same time, OPALCO endorsed I-1631 and YES for HOMES. Social media participation was high and member feedback was mostly positive with many strong messages of appreciation and support for OPALCO.

November 2018

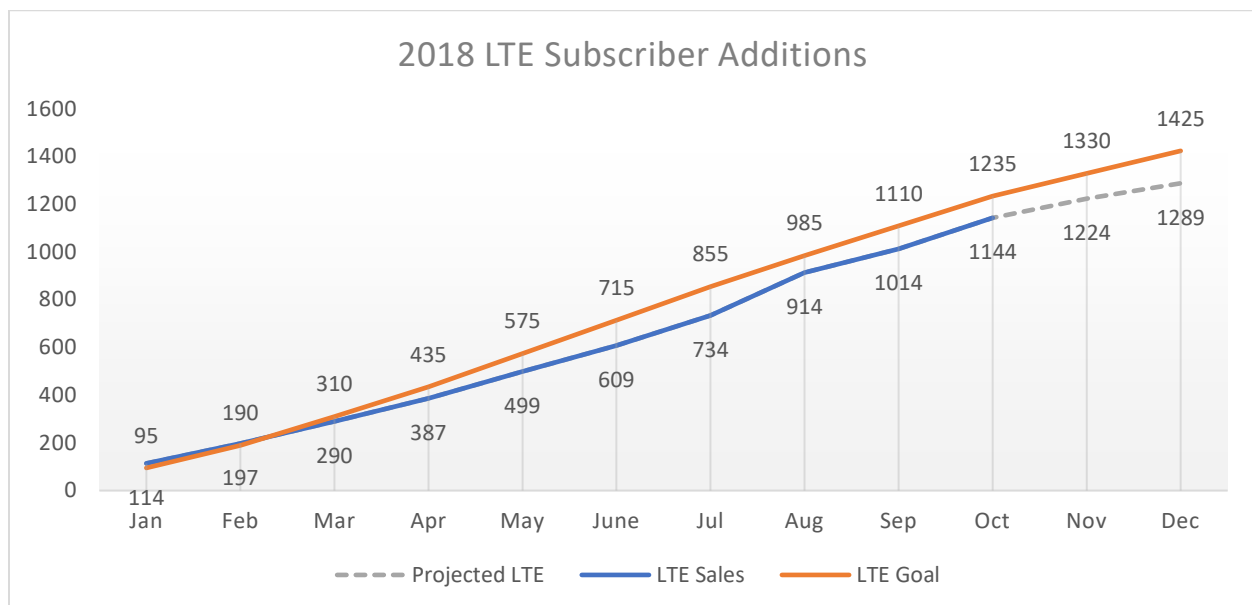
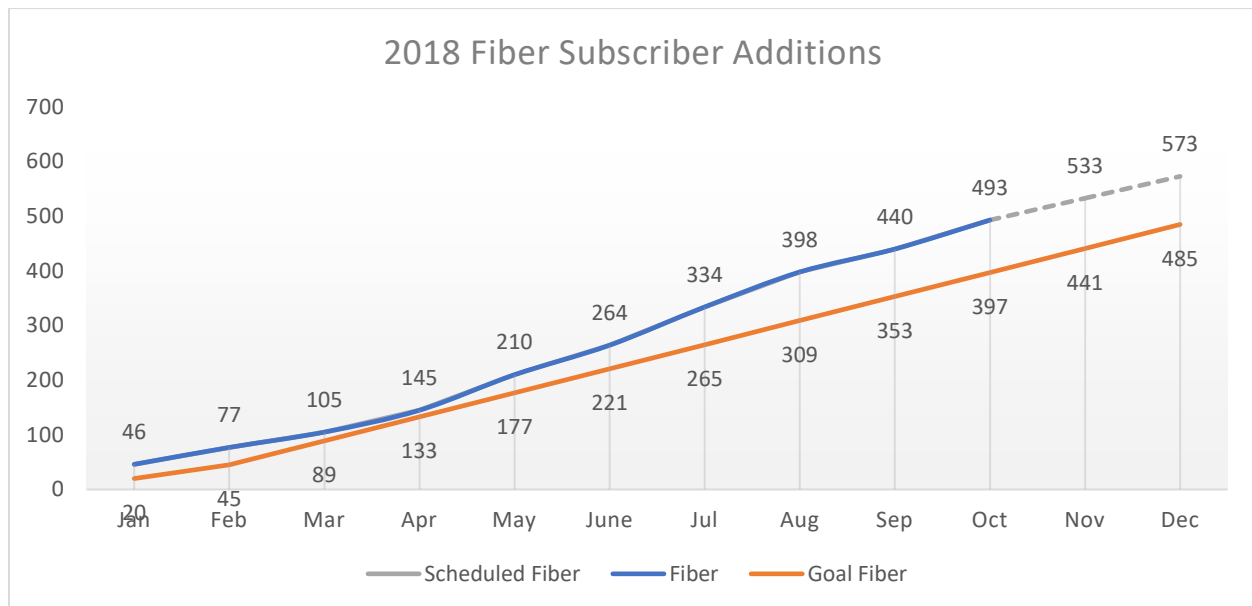
Snapshot:

- Rock Island is a wholly owned subsidiary of OPALCO. OPALCO is the sole owner and shareholder.
- Rock Island is financially independent of OPALCO; an initial loan for start-up of operations was repaid to OPALCO in 2016. At present, there is no debt carried on OPALCO financials for Rock Island, however OPALCO provides a guarantee to Rock Islands lender.
- Rock Island provides internet services to more than 4,800 subscribers in San Juan County, making it the largest ISP in the County.
- Rock Island remains on track to meet the business plan goals of operational cash flow positive in 2019 with approximately 5,400 subscribers, and business break even in 2021 with 6,135 subscribers. Current trends project the business to be operating at a net income of \$2M annually by end of 2024.

10-Year Business Snapshot



Sales Performance and Budget Forecast



- Current sales trends predict estimated gross new subscribers at 1,862 for YE-2018 (compared to 1,910 budgeted). The demand pipeline is full, and construction continues at full staff capacity.
- Current debt balance is \$22M and the repayment is fully supported by internet subscribers. Financially prudent investment will continue until member demand is met.
- Beyond 2022, the board may exercise its option to continue investment, accelerate debt repayment and/or pay dividends to OPALCO.

PNGC Power Pulse

October 2018

Inside This Issue

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- 3 PNGC Peak
- 4 Mid-C Pricing
- 4 BPA Happenings
- 4 Upcoming PNGC Events

Northwest Treasures

As stewards of the environment, we take the natural world we live in very seriously. As energy providers, we're focused on meeting the energy needs of our members in the lowest-cost, most efficient manner. In the Pacific Northwest we're fortunate because we benefit from a clean, carbon-free hydropower system that is the backbone of our economy. Hydropower accounts for nearly 60% of the energy produced in the region, and because it's a flexible baseload resource, it allows for the integration of variable renewables, like wind and solar, onto the grid.

The heartbreaking story this past summer of an orca mother pushing her dead calf around the waters of the Puget Sound for over two weeks reminds us of our responsibility to the natural world. As beneficiaries of the Federal Columbia River Hydropower System, we have a responsibility to arm ourselves with the facts associated with the demise of the Southern Resident Killer Whales, which are iconic to our region, beloved by all, and need our help.

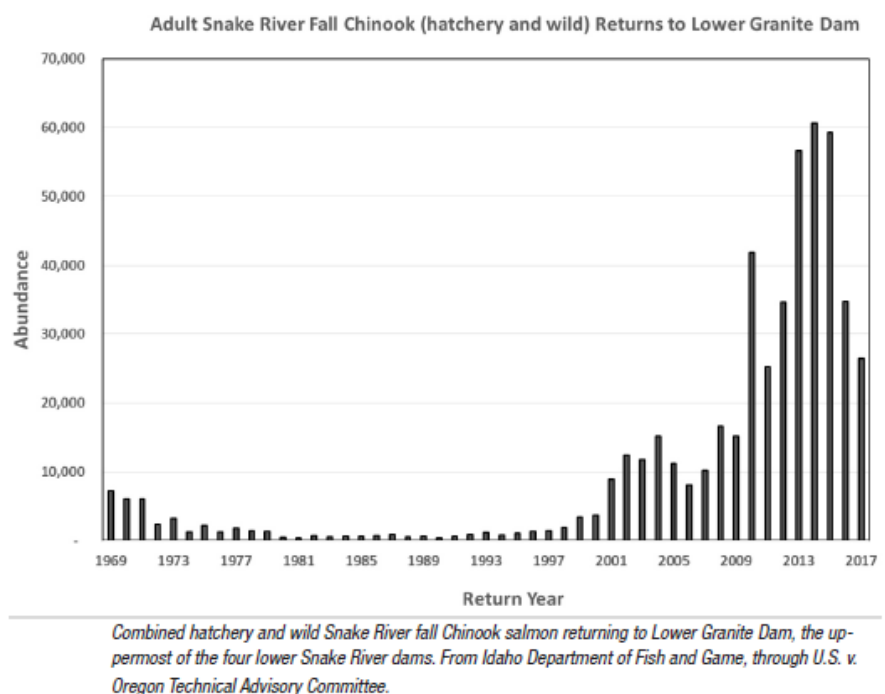
Federal scientists at the National Oceanic and Atmospheric Administration (NOAA) are striving to better understand what is going on with the orca pods, and part of that is to delineate which salmon populations are feeding which orca pods at any given time of the year. According to NOAA, the pods that ride along the western coast of British Columbia, Washington, Oregon, and California feed on two types of salmon species that travel out to the ocean from the Columbia and Snake Rivers. Fortunately, we see returning salmon numbers in these particular rivers increasing, and according to NOAA, over the past 20 years an estimated 75-80% of Chinook salmon survive through the four lower Snake River dams. Natural survival would not total 100% even in an undammed river, so these robust salmon numbers show that the fish and wildlife mitigation measures



employed by the Bonneville Power Administration and funded by Northwest electric ratepayers at the federal dams are working.

The plight of the orcas has reinvigorated the debate in the region over the value of the federal hydropower system. Advocates for dam breaching are pointing to the orcas as a reason to remove the region's largest, renewable, non-carbon emitting power resource. Unfortunately, they are not taking into account other factors such as ocean conditions, vessel traffic noise, and other habitat issues, such as the fact that returning salmon in the Puget Sound are found to carry high levels of contaminants ranging from prescription drugs to antibacterial compounds that make their own populations unstable. They aren't taking into account the environmental footprint associated with the energy resources needed to take the place of clean hydro if it were no longer available. There are a multitude of factors, and we need a comprehensive approach if we hope to affect positive change.

Orcas need healthy salmon in order to survive. The Columbia and Snake Rivers provide critical sustenance for the pods as they make their way north and into the Puget Sound. They also provide carbon free, reliable, low-cost energy that fuels our member-owners at the end of the line. As stewards of the environment we will continue to work toward solutions that balance the dual priorities of environmental responsibility and meeting the energy needs of our members in the lowest-cost, most responsible way possible.



2018 PNGC Power Annual Meeting

PNGC Power held its Annual Meeting October 1 and 2, at the Hotel Eastlund in Portland. This annual event brings together members from all of PNGC's cooperatives, and gives them a chance to discuss relevant topics and spend time with one another in Portland.

This year's agenda was packed with dynamic speakers. The day began with Bryan Hannegan, who is the CEO of Holy Cross Energy in Colorado, offering his insights into navigating an uncertain energy future. That was followed with a lively panel conversation with distinguished senior statesmen, the Honorable Norm Dicks and the Honorable Doc Hastings. PNGC's Ashley Slater moderated the conversation that moved from memories of politics past to contested current events. "It was so great to get their perspectives on these topics and remind people that bipartisanship can work," said Slater.

The afternoon brought updates from Elliot Mainzer, BPA Administrator, and Terry Flores, Executive Director of Northwest RiverPartners, talking about tough topics in the industry. And the day finished with Kirk Johnson, NRECA's Senior Vice President of Government Relations, as he gave a lively talk about the implications of the upcoming midterm elections.

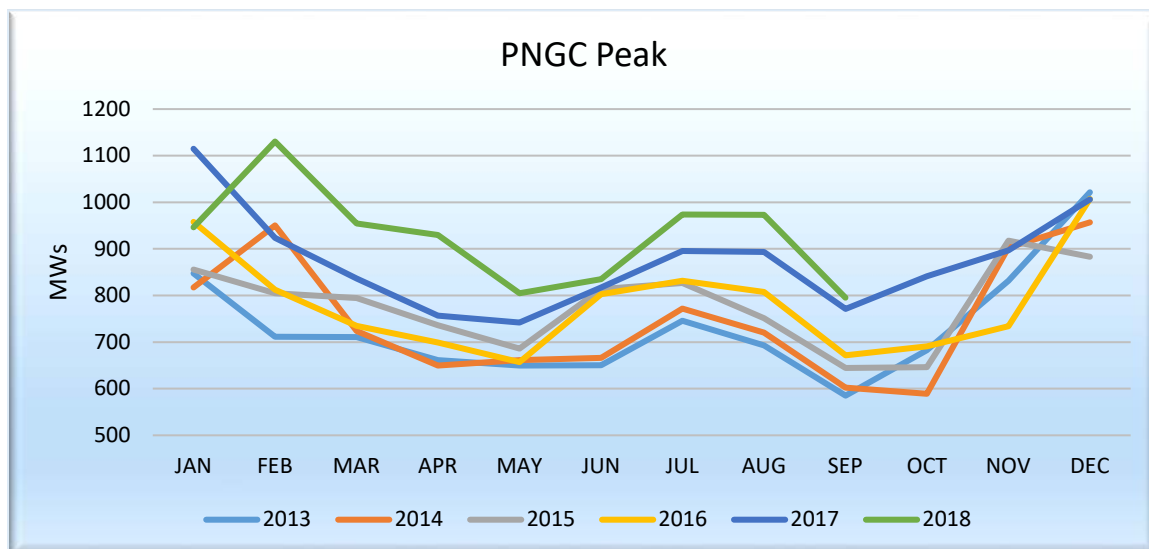
"We had a great line-up of speakers and wonderful planning on the part of staff," said Greg Delwiche, PNGC Power's Interim CEO. "It made for a memorable event that I think the members really enjoyed."



Ashley Slater leads the Honorable Doc Hastings (L) and the Honorable Norm Dicks (R) in a rousing bipartisan discussion

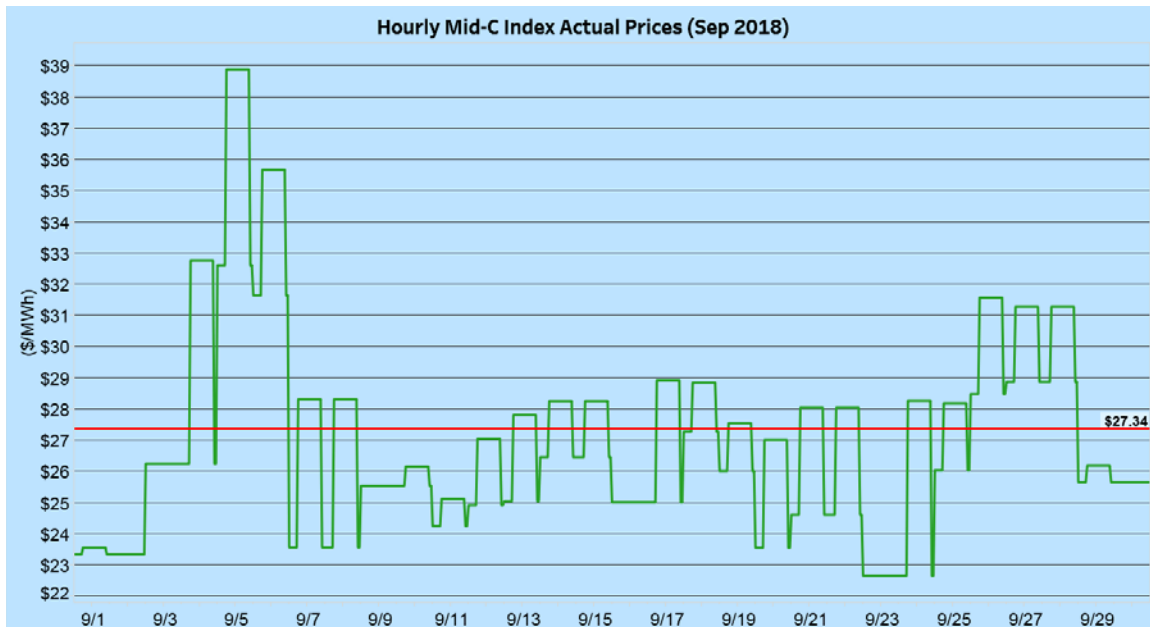
PNGC Peak

The graph below shows PNGC Peak for the past 5 years



Mid-C Pricing

The graph below shows Mid-C Pricing for the month of September 2018



BPA Happenings

Oct. 25	BP-20 and TC-20 Scheduling Conference
Nov. 7	Quarterly Business Review

Upcoming PNGC Events

Nov. 6	PNGC Board Meeting
Nov. 22-23	Thanksgiving & Day After Thanksgiving (office closed)
Dec. 4	PNGC Board Meeting & Holiday Dinner
Dec. 7	PNGC Staff Holiday Lunch (office closes early)



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PNGC Power is a Portland-based electric generation and transmission (G & T) cooperative owned by 15 Northwest electric distribution cooperative utilities with service territory in seven western states (Oregon, Washington, Idaho, Montana, Utah, Nevada and Wyoming). The company creates value for its member systems by providing power supply, transmission, and other management services. PNGC Power is an aggregator of geographically diverse loads in the region.