

# ORCAS POWER AND LIGHT COOPERATIVE 2021 BUDGET REPORT



## MEMORANDUM

Date: November 13, 2020

To: Board of Directors

From: Foster Hildreth, General Manager

Re: 2021 Budget Presentation

Attached please find our 2021 Budget Presentation. Due to continuing COVID-19 pandemic impacts to the co-op membership, staff is recommending a 0.0% rate increase for the 2021 budget year only. Subject to weather and pandemic conditions, staff is projecting budget revenues to come in at \$31.5M which will meet the financial, operational and capital project commitments for 2021. The projected figures for years 2022 thru 2025 are for reference only, as future years will be reviewed annually during the normal budgeting process.

The OPALCO staff and crew have worked harder than ever this year to keep our grid up and running. The team had to adjust to the working conditions of the pandemic: distancing in the office, working from home or staying in the field under challenging safety conditions. OPALCO's COVID-19 relief measures have helped the membership to get through this challenging period to date, but the work is not nearly done. The pandemic continues and the membership has yet to face the restoration phase and establishing a new normal which includes, for many, catching up on their OPALCO account balances. The impacts from COVID-19 began to influence kWh sales / revenue in March of 2020 and have continued through year end, especially with commercial accounts. There are ~400 co-op members participating in assistance measures and all indicators lead staff to prepare for compounding of pandemic effects before it gets better.

Because of OPALCO's partnership with PNGC, the Co-op is strategically positioned to develop a sustainable and healthy energy future for its island communities—but there is hard work ahead. OPALCO has an excellent plan in place with the IRP and will continue to develop as much local renewable power as the membership can bear, given land availability, cost and island aesthetics. OPALCO has developed a good track record with government grants and will continue to pursue grant opportunities for renewable projects as they become available. A second community solar + energy storage project is included in the 2021 budget, as well as \$150k to investigate other new technologies for renewable generation as a potential future resources. OPALCO has the expertise in its Board, management and team to secure a reliable, clean power supply for future generations and, along with PNGC, will influence regional development in the process.

In order to keep the rate increase at bay, staff have delayed or cut expenses for 2021 and many tough decisions were made during the budget process including a delay in hiring some critical positions. New membership applications trended upward in 2020 and a full engineering and operations staff is critical to manage the system. The 2021 budget will have to be dynamic: if conditions improve, vacant staff positions must be filled to keep the team working at full capacity. The Co-op budget is tightly constrained: one-third for power costs; one-third for labor and most of the final third in fixed costs such as plant, mortgage and operations. The few discretionary expenses that ordinarily occur in the budget are mostly member-facing programs. In consideration of continued safety during the pandemic and in order to eliminate a rate increases in 2021, the following programs have been impacted: staff travel and training (scaled back), County Fair (cut), Youth Scholarship Program (cut), Education and Outreach (scaled back).

In 2020, the pandemic delayed many investments in capital projects (notably Community Solar) and also a planned communication campaign to engage the membership in the coming energy transition away from fossil fuels. The *Island Way* campaign will launch in January 2021, telling the story of OPALCO's vision, explaining the Integrated Resource Plan and bringing members into their part of the story: investments in renewable generation, identifying land/easement donations for future local renewable and energy storage projects and the cost to secure a reliable and carbon-free power supply in the region. The campaign's goal is to activate members to participate in OPALCO programs and have all the efficiency tools and practices available to weather the transition and reduce their overall energy spending.

Capital projects that could be delayed have been shifted to future years: one major transformer replacement, system upgrades and a resource study. The challenge of 2021 is to find ways to demonstrate OPALCO's vision for the future while keeping members more engaged than ever in the programs - like Switch it Up, Community Solar and Energy Efficiency and Fuel Switching Rebates - that will help position them and the Co-op for sustainability going forward.

With so many members struggling to make ends meet during the pandemic—and for months to come once restoration begins—OPALCO will continue to offer COVID-19 Relief Measures (as began in April 2020) and strengthen bill pay assistance for member households of low and fixed income. OPALCO's assistance programs are administered through the three island family resource centers, where members have the benefit of social services expertise and access to all available community resources. The amount of the Energy Assist credit will remain the same as in 2020, to reflect no change to rates or the service access charge.

The 2021 budget continues to align our operations to the mission statement of providing safe, reliable, cost effective, and environmentally sensitive utility services. However, this budget marks a turning point as OPALCO accelerates its efforts to meet the marks set out as "TOMORROW." As pressures in the Pacific Northwest energy market increase, including Clean Energy Transformation Act (CETA) mandates and timeline, the Co-op cannot afford to delay action.

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. Leverage grants, state and federal programs to help members increase efficiency and position themselves for sustainability in the coming economy of carbon reduction.

TOMORROW: Increase local resilience. Bring more local renewables on, leveraging our dynamic grid and building emergency back-up power for emergency services. Prepare for grid parity when renewables (local and regional) will be less expensive than our mainland power provider. To reach the goals of the IRP, government grants will be critical as well as member participation (donations of land or easements) and investment in community resource projects.

FUTURE: Give members more control. In the coming "transactive" energy world, members will dynamically buy and sell local power, make decisions about power usage for their smart and connected homes in response to real time price signals and integrate energy storage (EVs, batteries...) into the Co-op grid. To give members access to this dynamic power world, OPALCO must begin to upgrade transformers and other equipment to provide the capacity necessary to manage the number of EVs, electric ferry charging, local distributed power generators and battery storage units that will be commonplace – as well as smart appliances and individual devices.

The 2021 Budget includes the next Community Solar and Energy Storage "microgrid" project (on San Juan Island). Operations will replace 20 miles of URD and multiple distribution submarine cables (Canoe, Center, Fawn, Little Double and Big Double), as well as routine replacement of distribution and transmission poles.

Curtailing expense in 2021 presents a challenge for future years. The rate increases forecast for the next four years must reposition the Co-op's equity for capital projects on the horizon including a major submarine cable replacement from Lopez to Orcas in 2030. The budgetary measures

proposed for 2021 are a short-term and necessary solution for a challenging time, however the Co-op's equity position must recover steadily in the following years.

Staff recommends Board make a motion to approve the 2021 budget as submitted.

## BUDGET NARRATIVE

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### **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 – OPALCO has a rigorous safety program for all employees and provides safety information to members through classroom visits, demonstrations, field assistance and the website. The right-of-way (tree trimming and brush clearing) program is key for system reliability and, increasingly, to protect our system and our forested islands during fire season. OPALCO depends on member cooperation to address right-of-way issues in a timely manner. The Co-op is committed to continually improving and fortifying our safety programs. OPALCO's grid is critical for the safety of our community and especially our crew members in the field. OPALCO's grid connects the County to real-world services for education, economic development and quality of life.

✓ Reliability – OPALCO's system provides power 99.94% of the time to its members. This is a reliability rating to be proud of. We continue to budget for replacement of the old unjacketed 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 2021, we will complete the second Community Solar + Energy Storage microgrid project, another big 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. For cost and safety considerations, our goal is to minimize the number of times we have to send linemen out in a storm, in a boat, on a dark night. Our continued commitment to developing local battery storage projects creates cost savings through relieving stress on our assets, load shifting and peak shaving. Equipment replacement scheduled for 2021 and beyond position the Co-op to benefit from local distributed power resources as we reach grid parity.

✓ Environmentally Sensitive – OPALCO has critical 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. In every project, OPALCO's vision of sustainable island communities keeps us focused on best practices and member education.

### **Load Forecast:**

The Load Forecast is the heart of the budget and the most precarious aspect of our forecasting. The forecasting drives our power cost which is one-third of our expenses and our energy (kWh) sales which is two-thirds of our revenue. 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.

Forecasting is challenging. Our team uses every available tool 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 and historical data, including air temperature, water temperature, wind speed and direction, and precipitation.

Weather drives heating load. OPALCO's load peaks in the winter, in large part due to increased 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 2021, the forecast is a neutral weather pattern (in between El Niño and La Niña) with projected kilowatt hour purchases of 216M 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.

Based on the neutral weather pattern, we estimate our load to be 216M kWh. With that information, we set rates accordingly – to generate the revenue to pay for the expenses. The science of forecasting is imperfect: if it ends up being colder than we forecast, member bills are higher than budgeted and we end up with more money than needed to cover co-op expenses; if weather was warmer than forecast, member bills are lower than budgeted and we end up with less money than needed to cover expenses. To combat this unavoidable situation, the Energy Charge Adjustment (ECA) works well to partially offset weather volatility.

## BUDGET ASSUMPTIONS

### GENERAL:

- **General Inflation Rate:**

The general annual inflation rate has been projected at 2% for years 2021, 2.5% for 2022, 3% for 2023, 3.5% for 2024 and 4% for 2025. We use the US Department of Labor, Bureau of Statistics, Seattle-Tacoma-Bellevue consumer price index as the baseline for inflation. ([https://www.bls.gov/regions/west/data/consumerpriceindex\\_seattle\\_table.pdf](https://www.bls.gov/regions/west/data/consumerpriceindex_seattle_table.pdf))

- **2021-25 Budget Basis:**

The 2021-2025 budgetary figures have been forecast with the use of actual activity from January through September 2020 and adjusted 4<sup>th</sup> quarter 2020 projections.

- **BPA Power Cost Projections:**

- ~90% of the power resource we depend on are sourced from our Federal Hydro System.
- BPA operates on a two-year rate cycle. 2021 is the second year of their current rate case. In 2021, with lower OPALCO kWh purchases, we are budgeting for an overall rate increase in BPA kWh charges of approximately 2.0% over 2020, resulting in approximately 0.8% in the total cost increase. The BPA rate also includes fish spill & oversupply surcharges, potential power cost recovery adjustment clause (CRAC) increase, demand charge volatility, and residential exchange charges. OPALCO works closely with PNGC to identify these cost increases.

- From 2022 through 2025, we have maintained a 5% BPA cost increase for each year.
- Load growth is expected to be between 0-1% per year.
  
- **Labor:**
  - Staffing levels will drop to 47 (from 50) full-time OPALCO employees in 2021 (see organization chart). OPALCO will delay filling three open positions in 2021 in order to avoid a rate increase during the pandemic. If conditions improve, those positions may be filled to keep the team working at full capacity.
  - The general wage increase is in accordance with the current Collective Bargaining Agreement. The management team has volunteered to forgo a cost-of-living increase in 2021 in solidarity with members struggling during the pandemic and to support a freeze on rate increases.
  - The benefit growth assumptions are in accordance with 2021 NRECA and LineCo rate projections based on the changes to the benefits package.
  
- **Capital Projects:**
  - The 2021 capital projects are based on the 2017 – 2020 RUS Construction Work Plan (CWP); many of these projects were budgeted for 2020 and then delayed due to safety considerations during the pandemic. 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.
  - Planning – Engineering will complete the 20-year Long Range Plan and 2021-2024 Construction Work Plan (CWP) in early 2021 with the supporting Environmental Report for the CWP for submittal to USDA RUS. These plans will grow load and resources as anticipated in the IRP such to ensure our system is built to handle electric vehicle integration, electrification of the ferries, fuel switching and also remain stable with the integration of distributed resources (batteries, roof-top solar, etc.) and utility resources to include community solar, utility scale solar, utility scale battery systems, tidal generation, etc.
  - Investigate other technologies for renewable generation (\$150k in 2021) – OPALCO is laying the groundwork to prepare for grant funding opportunities in coming years. Please note, another \$150k is forecast for 2022.
  - Distribution System:
    - New Services continue to trend upward since the lows of the recession (2008-13) with an upturn during mid-2020 likely attributed to COVID-19 migration. For 2021, \$397k is budgeted with an average of \$408k 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 105 miles of unjacketed URD to replace system-wide over time with problem areas mapped for priority scheduling. In 2021, 20 miles of URD is slated for replacement at a budgeted cost of \$1.6 M. Staff expect an average annual spending of \$1.5 - \$2M for the foreseeable future for replacement of unjacketed URD.
- Conversions, Line Changes and Tie Lines - ~\$1.6M is budgeted in 2021 for conversion to large conductors: upgrading lines to carry greater capacity and increased ability to reroute power, in addition to the replacement of the Center Island submarine cable.
- Sectionalizing Equipment expenses will be to automated switches on our system improve reliability and give us greater visibility into our system.
- SCADA spending includes new SCADA software in 2021 (\$150k) allowing better access to system data and the foundation for the automation of switching events to minimize outages.
- Grid Control Communications Infrastructure (fiber) expansion for 2021 (\$150k) is budgeted to install conduits for future fiber jointly with other projects, expanding the original fiber backbone and maintenance of active sites.
- Transmission System – Projects include the routine replacement of transmission poles and upgrades to our switching between BPA feeds to improve reliability in the event of a BPA outage between Anacortes and Lopez.
- Facilities – Decreased spending budgeted for 2021 (\$247k) due to installation of vehicle chargers, Friday Harbor generator, Lopez POP HVAC, and repairs to the Friday Harbor and Lopez office generators.
- Transportation – Capital expense for fleet is expected to average ~\$271k per year.
- Substation/Community Solar
  - Energy Storage System (ESS) – The 2021 budget includes the San Juan Microgrid (\$1.68M) with offsetting funds from a WA DOE grant (50% matching funds). This 2 MW/4 MWh ESS will 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.
  - Community Solar Project – The 2021 budget includes our potential next project on San Juan to interconnect to the proposed 2 MW/4 MWh ESS in years 2021-2022 (\$4.8M not including a \$2.4M WA DOC grant). This project may span years yet will have offsets from member contributions due to dependencies such as contracting, siting, interconnection, etc.
- Project Shifting – In order to levelize capital spending, some projects will shift to future years. Engineering and design may occur in 2021. One example:
  - Olga Transformer to 2022 (\$1M) – This project would replace the Olga Substation transformer. The existing Olga Substation transformer would be relocated to the Lopez Substation as a means for transformer maintenance and failure contingency. This transformer would allow for Olga Substation to support Eastsound and Orcas Substations during maintenance or outage events.
- **Energy Savings:**
  - Staff continue to offer RESP funds from RUS for the Switch it Up on-bill financing program. Member participation was less than budgeted in 2020 due to the COVID-19 restrictions on residential construction. The 2021 budget assumes getting back on track with projected projects in early-mid 2021, depending on pandemic conditions.
  - A new Community Solar + Energy Storage project will be available for member purchase in 2021.
  - BPA/PNGC pass-through rebates will continue for ductless heat pumps, weatherization, commercial lighting, and appliances. Members can apply for rebates online.
  - Beneficial electrification (fuel-switching) rebates are offered again in 2021. More self-funded incentives for ductless heat pumps (55) and EV charging stations (50) will be available. These conversions bring new load (kWh usage) and revenue, and help members breach the cost barrier for these appliances. Switch it Up participants will also receive beneficial electrification incentive (30 available) off the principle of their projects.
  - Staff support for energy education and outreach will continue in-house in 2021. Considerable staff time will be dedicated to the Island Way campaign to help members prepare for the shift away from fossil fuels.
- **Capital Credits**
  - Capital credit pay out cash planning is based on an average 25 year pay back cycle (remaining 1996 capital credits in 2021) plus an additional “smoothing” payout amount (~64% portion of 1997 in 2021). \$1.3M in capital credits are expected to be retired in 2021, going up to \$1.4M in 2022 and 2023 and \$1.5M in 2024 and 2025. The goal is to smooth out the low and high year payouts by using an average rather than strict year total.

- **Energy Assistance Program:**
- The 2021 Budget includes a continuation of ~\$134k for low-income monthly bill credits, which range from \$31.41 (single person household) to \$61.41 (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). Outreach continues to encourage participation.
  
- **Communications**
  - Island Way Campaign – all communications efforts in 2021 will be unified under the banner of the *Island Way* campaign, to build understanding for and investment in OPALCO’s vision for local resiliency, future power supply and the priorities of the IRP. See the October 2020 board materials for an outline of the comprehensive communication plan.
  - Community Solar – member outreach to encourage participation in the next Community Solar + Energy Storage microgrid project will be a high priority once project details are confirmed in mid-2021.
  - Safety - member awareness messaging and outreach is planned to inform members about key safety issues. Right of Way clearing and wildfire safety will be emphasized.



## **OVERALL SUMMARIZATION:**

### **1. Revenue:**

For 2021, staff recommends a rate increase of 0.0%, equating to a total revenue decrease of -0.7% due to uncertain weather patterns, especially in Q4. The recommendation is made in consideration of our members who are impacted by the pandemic. The Energy Charge Adjustment (ECA) will continue to be in place to alleviate the impact of uncertain weather patterns on rates.

### **2. Margins:**

Per Staff recommendation, projected margins are as follows: \$ 2.2M in 2020 (projected), \$1.0M in 2021 (budget), \$0.9M in 2022 (forecast), \$1.2M in 2023 (forecast), \$1.6M in 2024 (forecast), and \$2.5M in 2025 (forecast).

### **3. TIER:**

Per Staff recommendation, TIER is as follows: 2.11 in 2020 (projected), 1.50 in 2021 (budget), 1.44 in 2022, 1.56 in 2023 (forecast), 1.75 in 2024 (forecast), and 2.14 in 2025 (forecast).

### **4. Equity % of Total Capitalization (OPALCO):**

Per Staff recommendation, Equity % of Total Capitalization is as follows: 35.6% in 2020 (projected), 35.8% in 2021 (budget), 35.9% in 2022 (forecast), 35.9% in 2023 (forecast), 36.3% in 2024 (forecast), and 37.4% in 2025 (forecast).

### **5. Debt:**

Due to historically low interest rates OPALCO accelerated borrowings in 2020. This will eliminate the need to borrow from RUS Federal Financing Bank (FFB) in 2021 and reduce 2022 borrowings by ~\$2.2M. We anticipate borrowing from the RUS-FFB \$0 in 2021, \$2.6M in 2022, \$3.8M in 2023 and \$3.4M in 2024, and \$3.6M in 2025 for capital projects. This assumes that capital project funding in 2023-25 is 50% through RUS-FFB and 50% through member rates. We anticipate using our approved RUS (FFB) loan funds and have estimated interest rates between 3-4% for 2022 through 2025. RUS Rural Energy Savings Program (RESP) funds will be borrowed at 0% over a 10-year period as member demand defines, to provide on-bill financing to members for efficiency / fuel switching measures. RESP borrowing has been projected between \$750k - \$1.5M for 2021-2025. \$19.5M in RESP funds are still available at year end 2020.

6. Rate Detail:

- The chart below details the impact on average residential members Energy Assistance Program and PAL recipients.

|  | Average Residential User |  | Average EAP Recipients | Average PAL Recipients |
|--|--------------------------|--|------------------------|------------------------|
| Number of Services (Meter Points)                        | 12,590                   |  | 645                    | 601                    |
| Average Months of Usage                                  | 12                       |  | 12                     | 12                     |
| Average Usage (kWh) per month                            | 1,045                    |  | 953                    | 1,018                  |
| Average Monthly Bill using Existing Rate (2020 and 2021) | 162.21                   |  | 152.19                 | 159.27                 |

Notes: 1) Data period from November 2019 to October 2020.



# 2021 Budget: Weather Trends

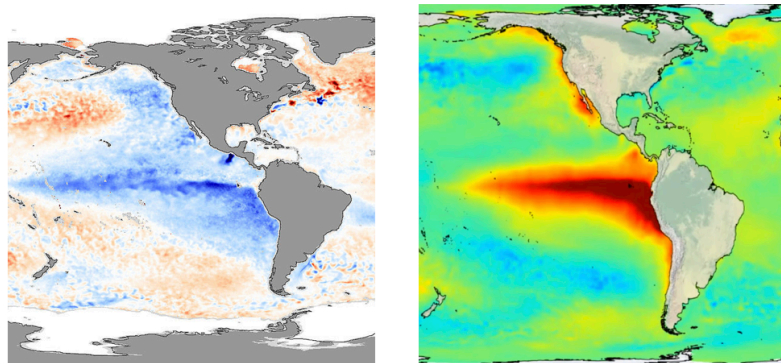
# 2021 Load Forecast (1 of 2)

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## Global Weather Perspective: Oceanic Niño Index (ONI)

Our winds prevail from the south, and the air temperature is influenced by *southern* hemisphere El Niño and La Niña cycles

### Southern Hemisphere Pacific



La Niña  
(cooler winters)

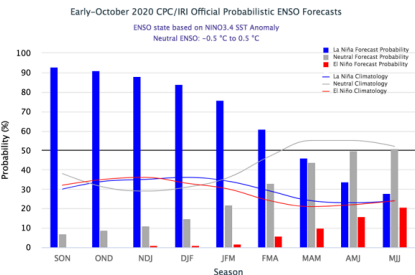
El Niño  
(warmer winters)

Source: NOAA

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## Global Weather Perspective: Oceanic Niño Index (ONI) Forecast

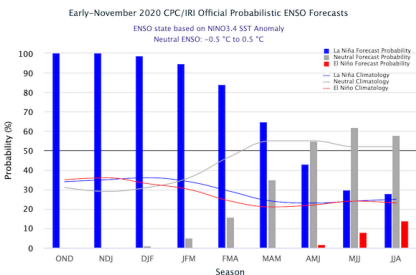
### Last Month Forecast



La Niña is likely to continue through the Northern Hemisphere winter 2020-21 (~85% chance) and into spring 2021 (~60% chance during February-April)

Source: NOAA

### November Forecast



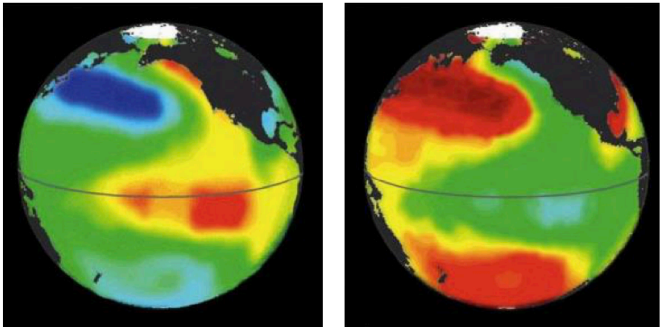
La Niña is likely to continue through the Northern Hemisphere winter 2020-21 (~95% chance during January-March) and into spring 2021 (~65% chance during March-May).

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## NW Weather Perspective: Pacific Decadal Oscillation (PDO)

Our air temperature is also influenced by *northern* hemisphere PDO which effects nearby ocean temperatures

### Northern Hemisphere Pacific



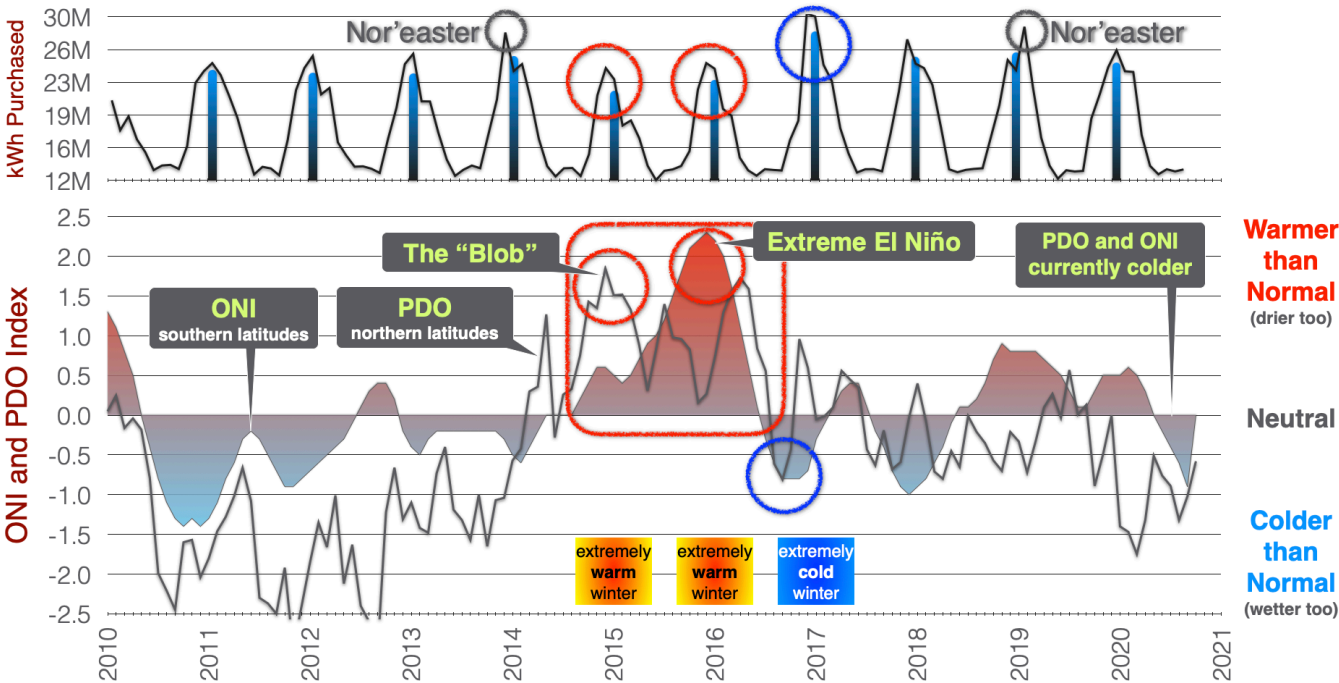
Cold PDO

Warm PDO  
(The “Blob” 2016)

Source: NOAA

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## Energy Purchased, ONI and PDO: Monthly kWh and Average Winter kWh (Dec, Jan, Feb)



Source: NOAA

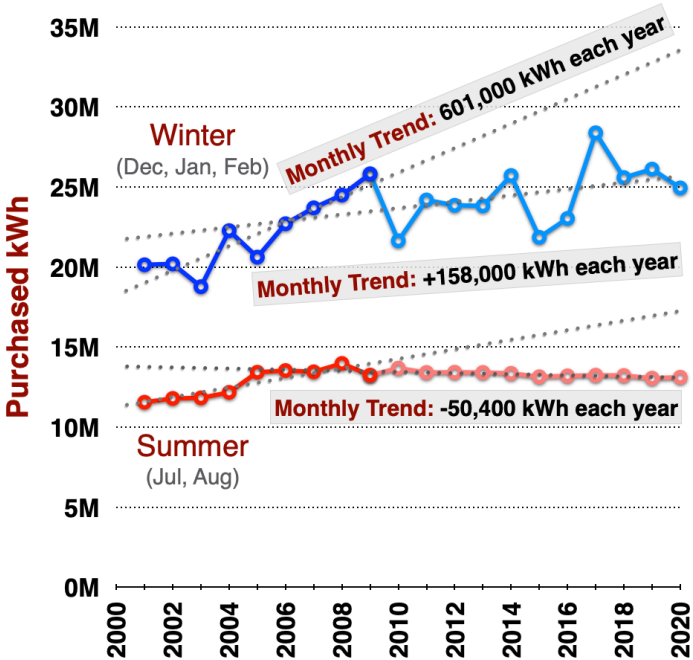


# 2021 Load Forecast (1 of 2)

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## Seasonal Load Trends: Summer, Winter

Efficiency moderating growth now.  
EVs, eFerries, and telecommuters will lift growth in coming decade.



Despite HDD warming trend, **winter load** has slowly increased as members shift to electric heating which is lower cost compared to propane.

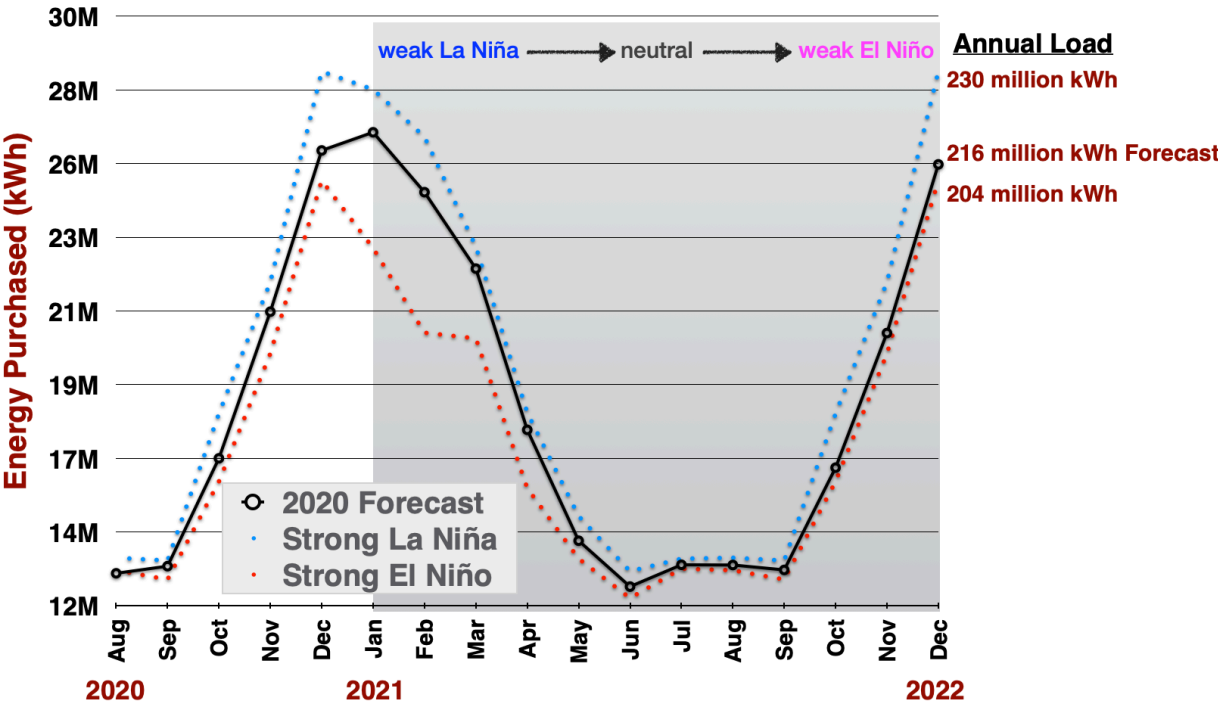
**Summer load** was trending down with energy efficiency improvements and local solar generation.

We may see a slight trend up as air conditioning, telecommuters and EVs increase.

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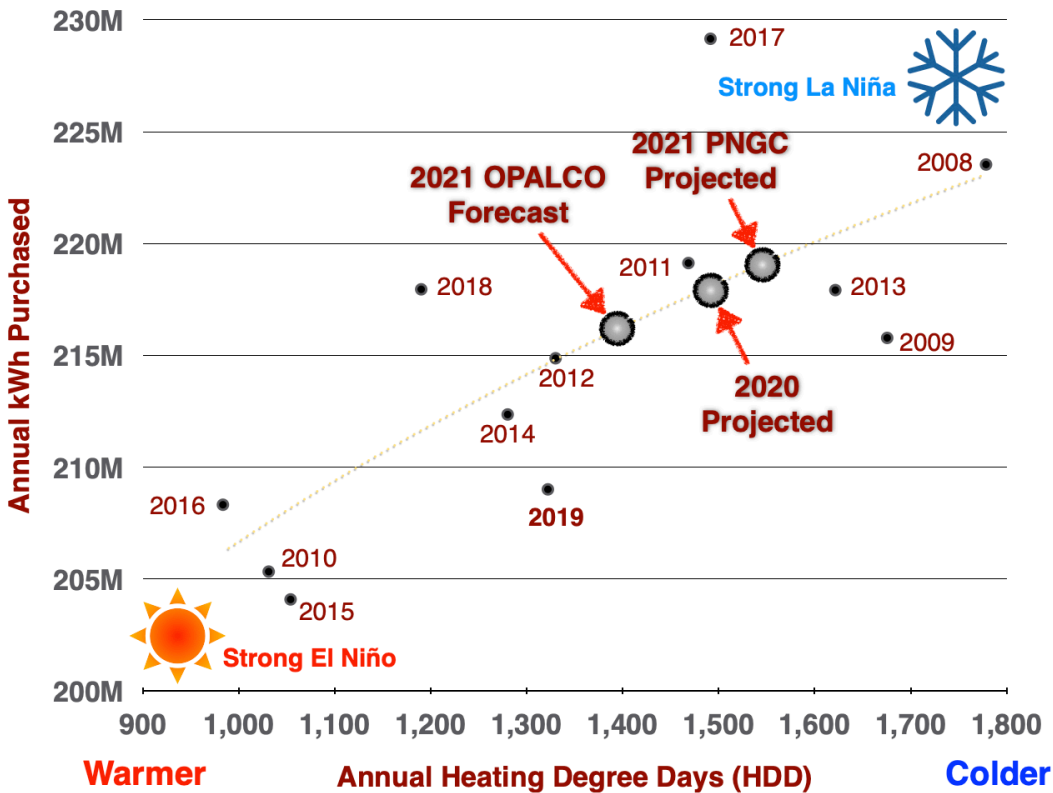
## 2021 Monthly Energy Forecast: With El Niño, La Niña Historic Boundaries

Weak La Niña, driven by cooler ONI and PDO, possibly transitioning to warmer weak El Niño next winter.



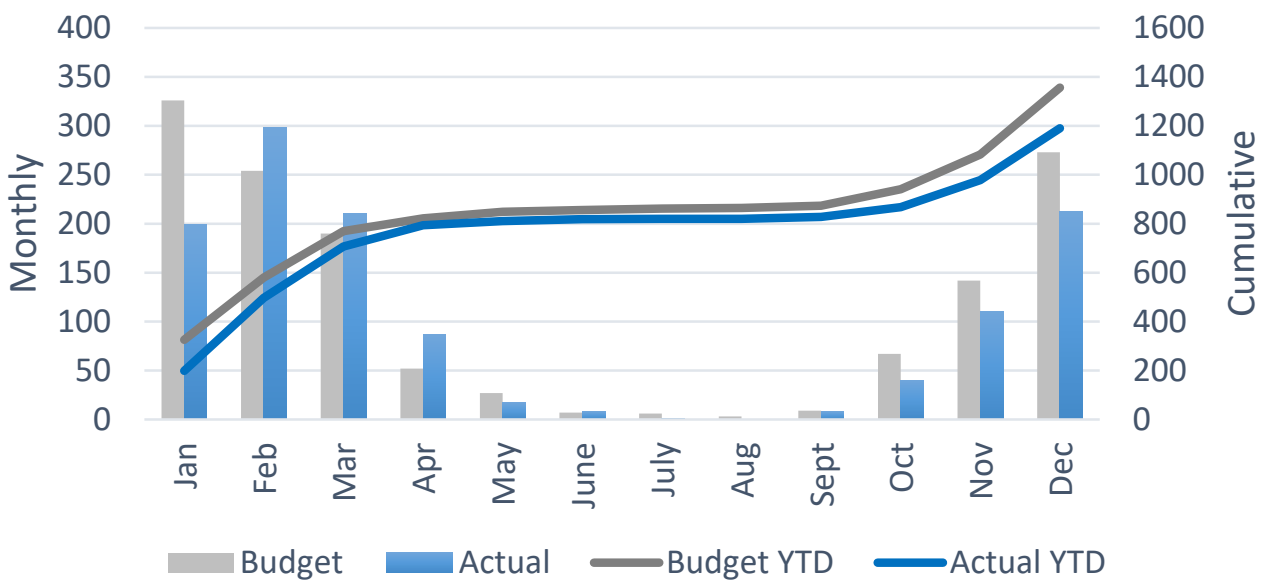
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## 2021 Load Forecast: Weak La Niña

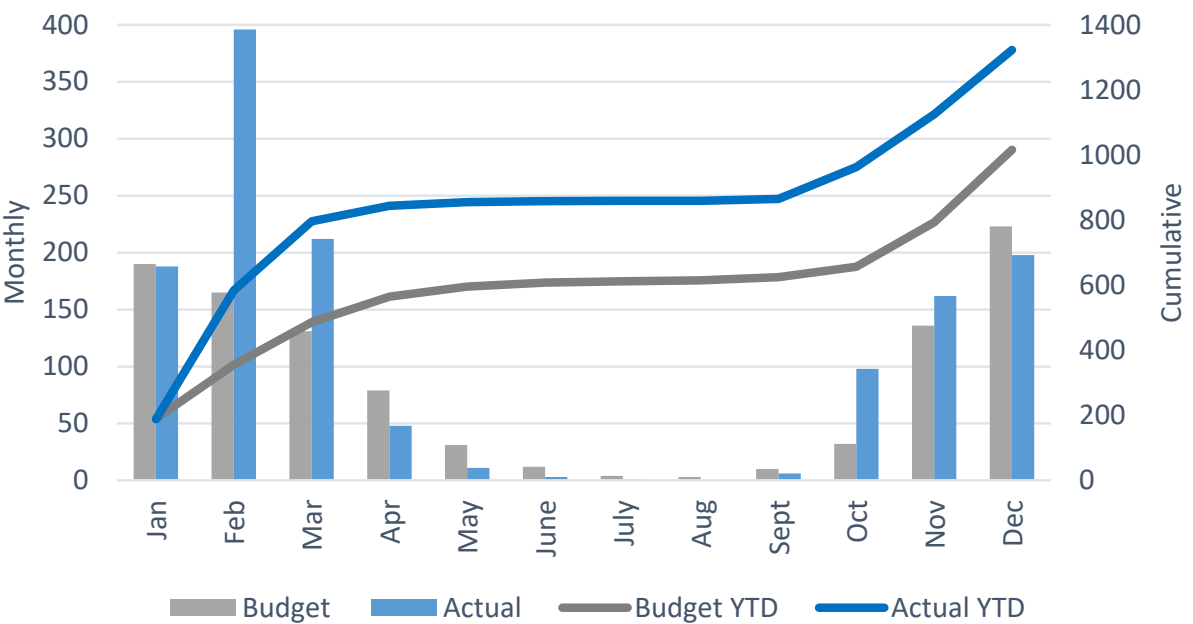


# 2021 Budget: Heating Degree Days

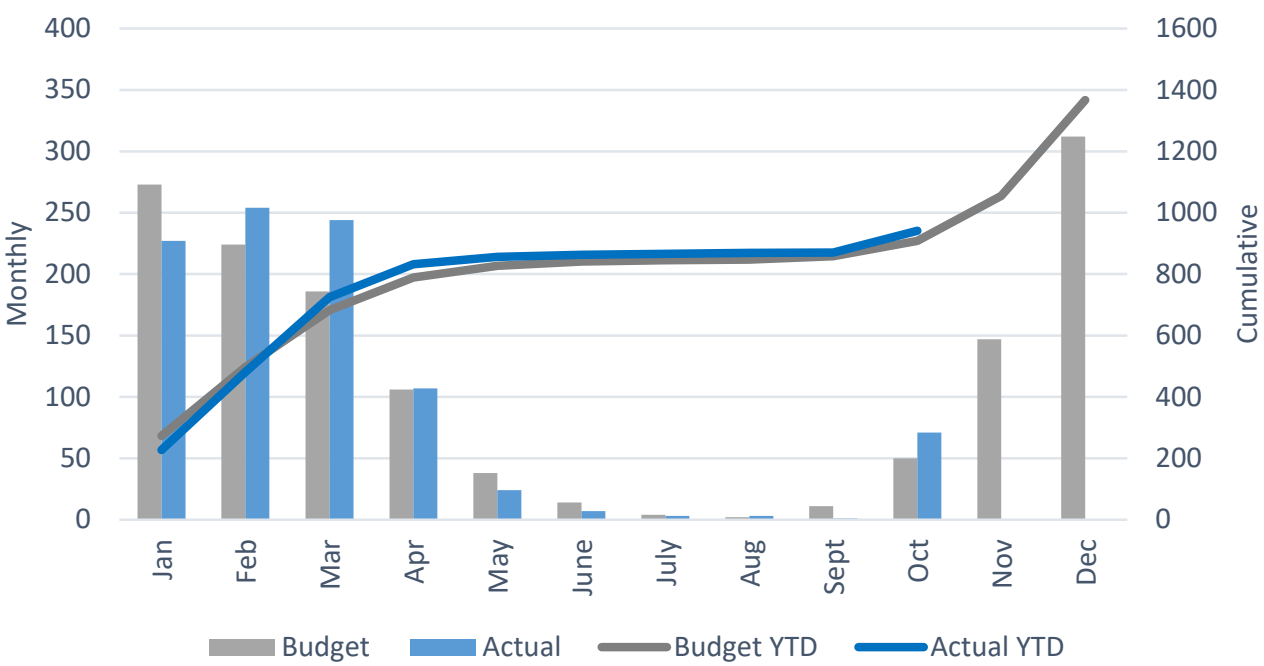
2018 HDD's



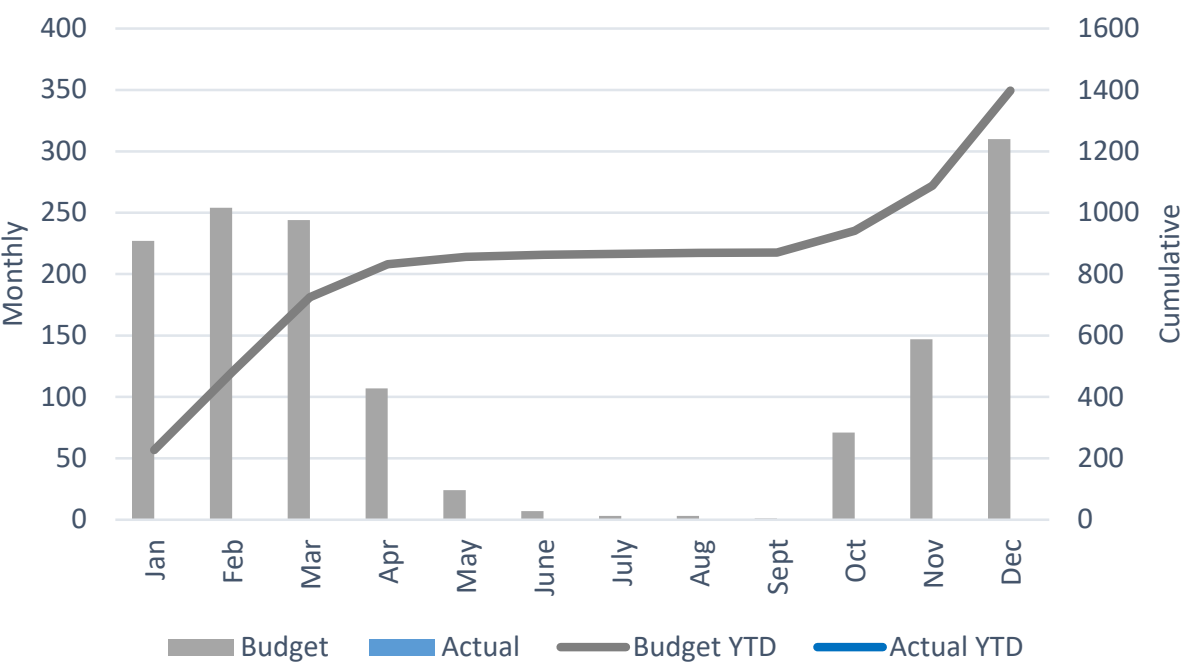
2019 HDD's



2020 HDD's



2021 HDD's

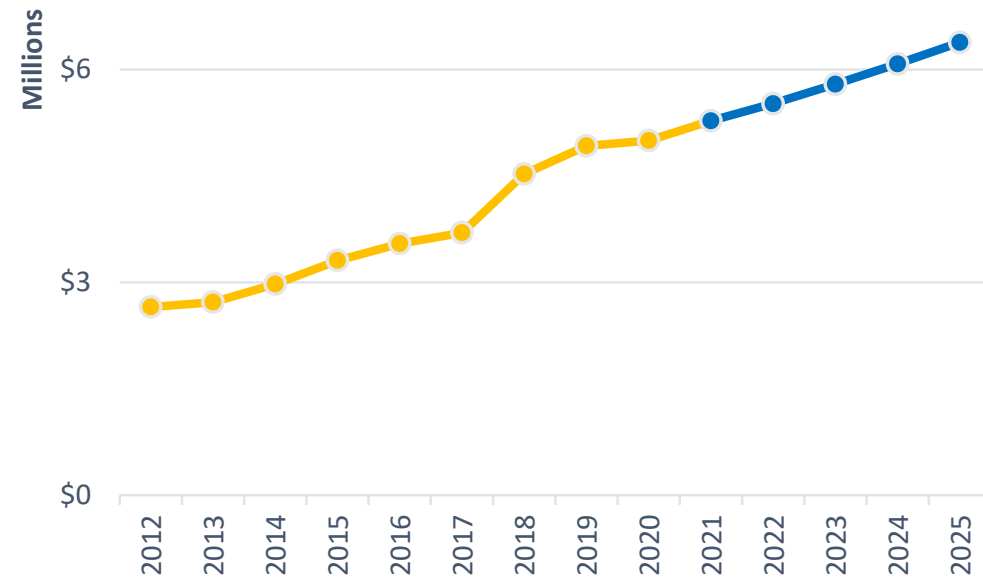




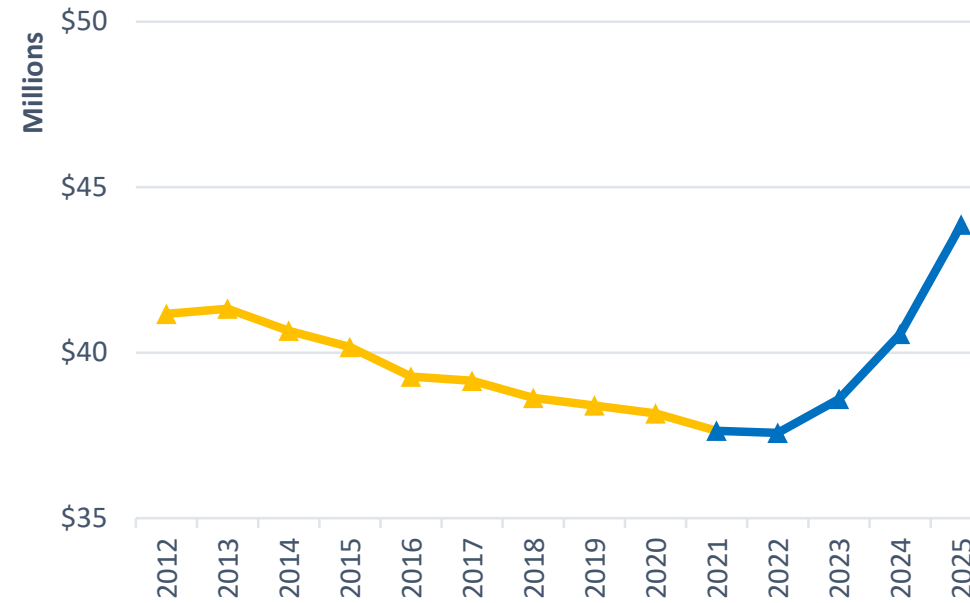
# 2021 Budget: Financial Highlights

# 2021 Budget: Financial Metrics

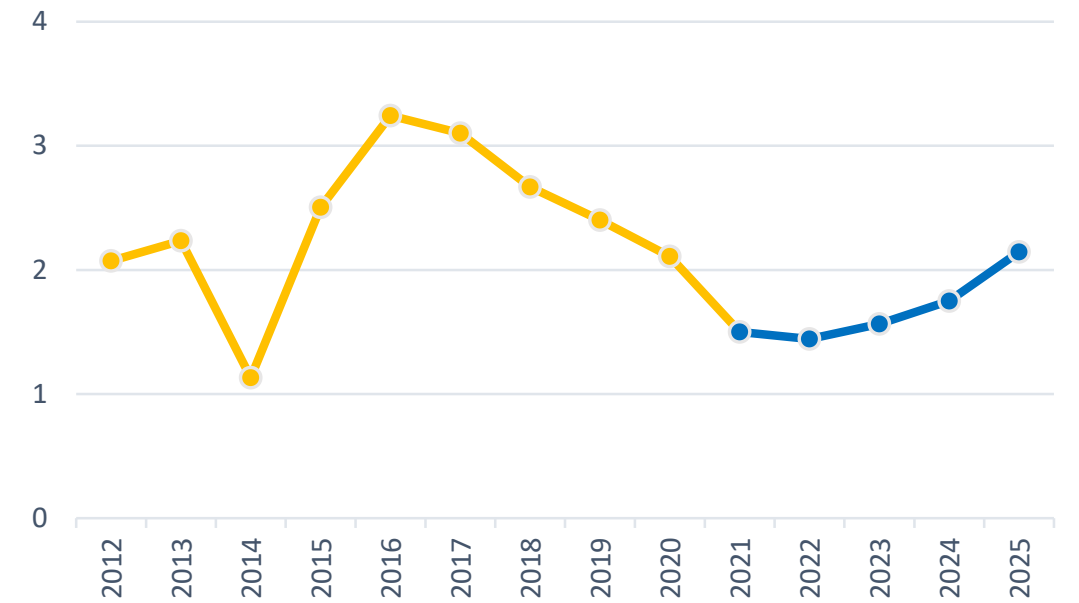
## Depreciation & Amortization



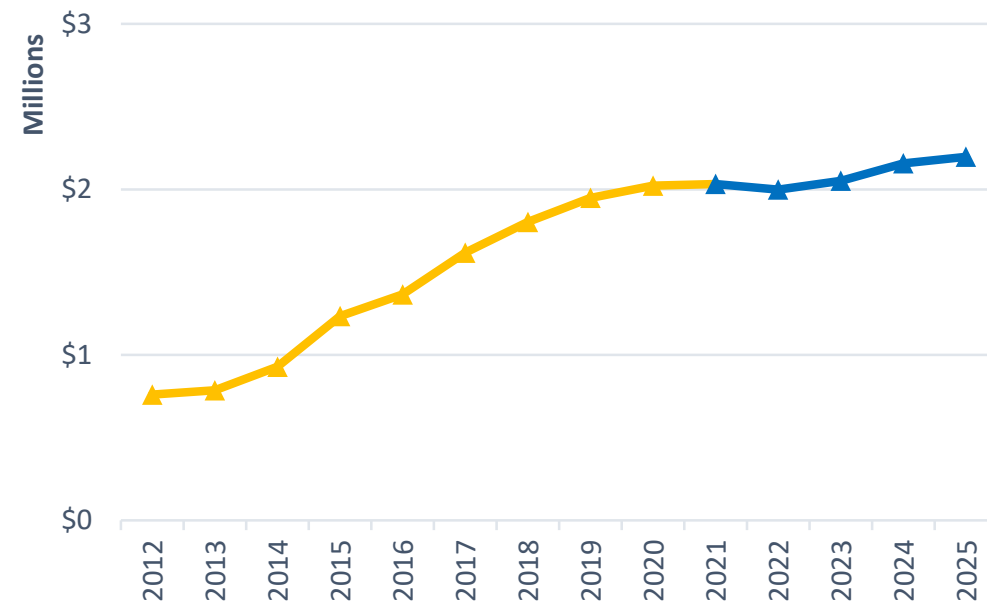
## Equity



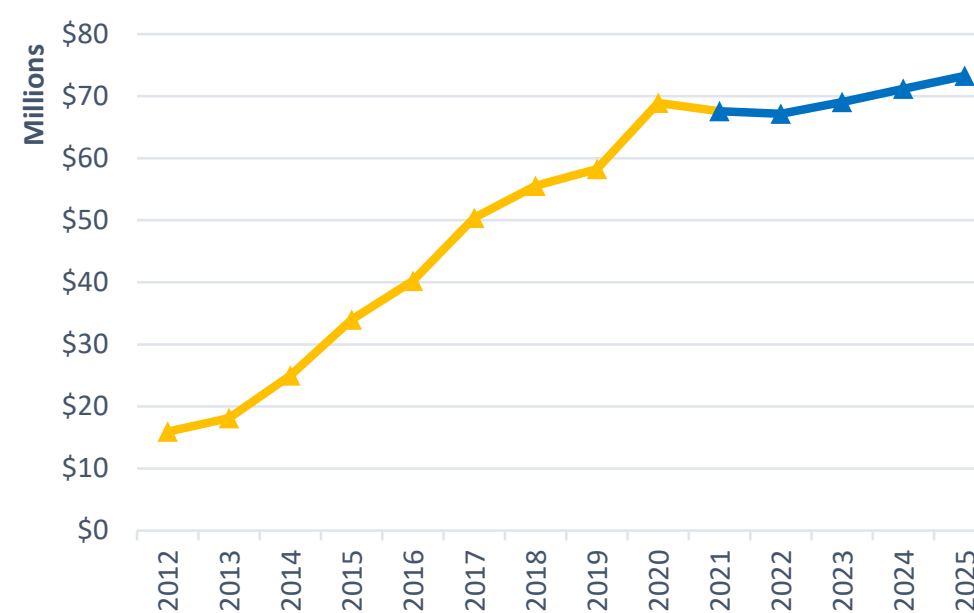
## TIER



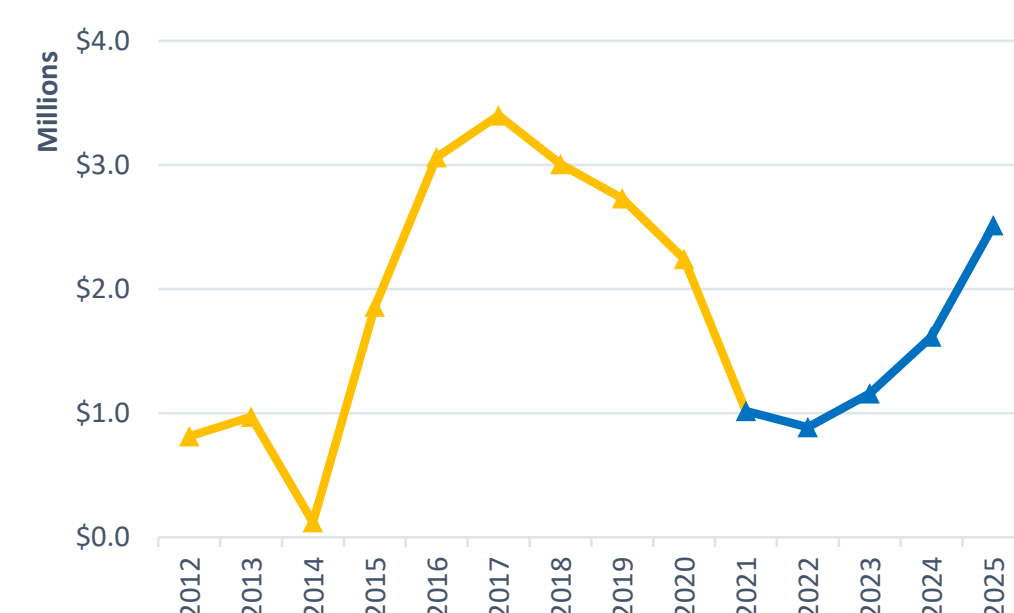
## Interest



## Debt

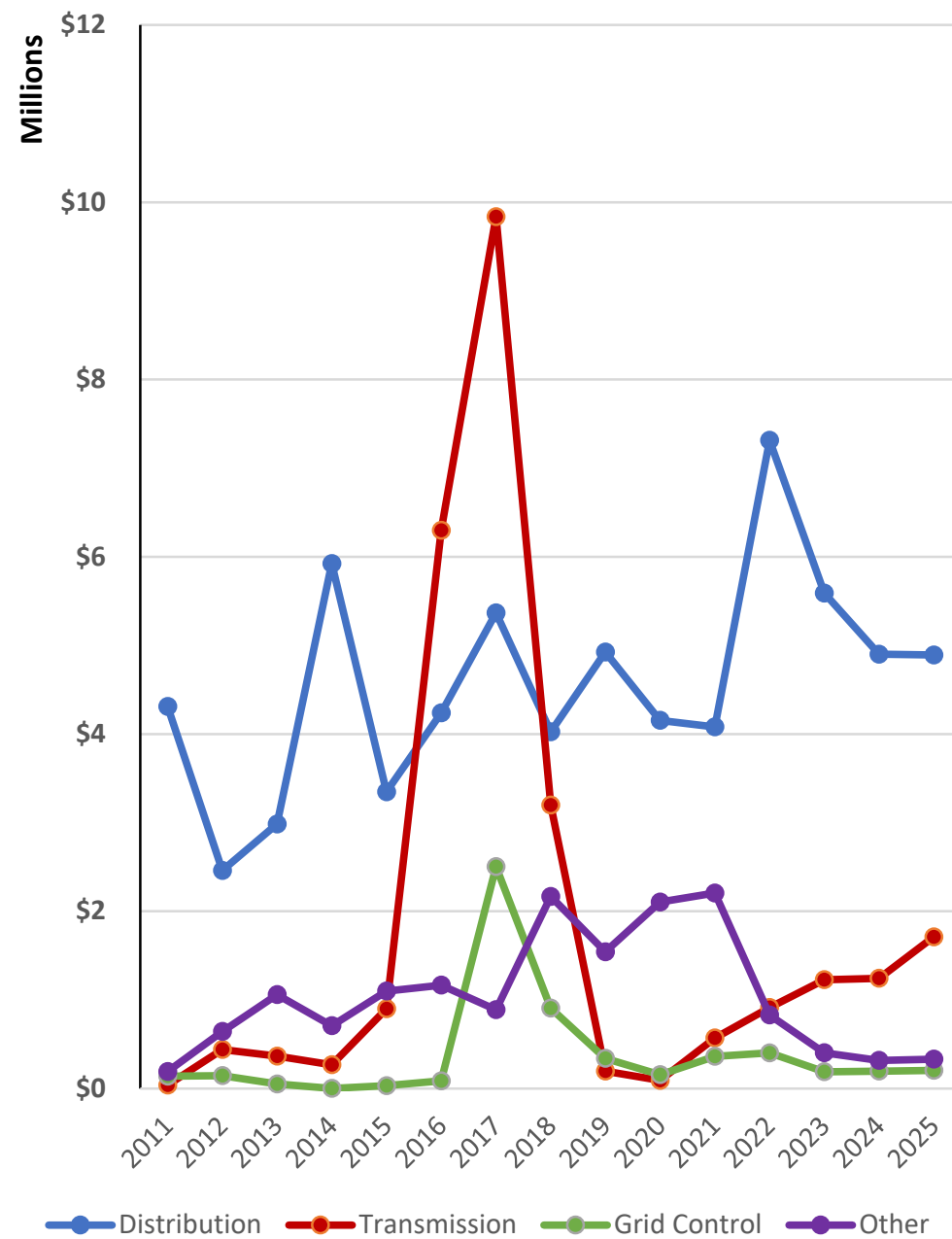


## Margin

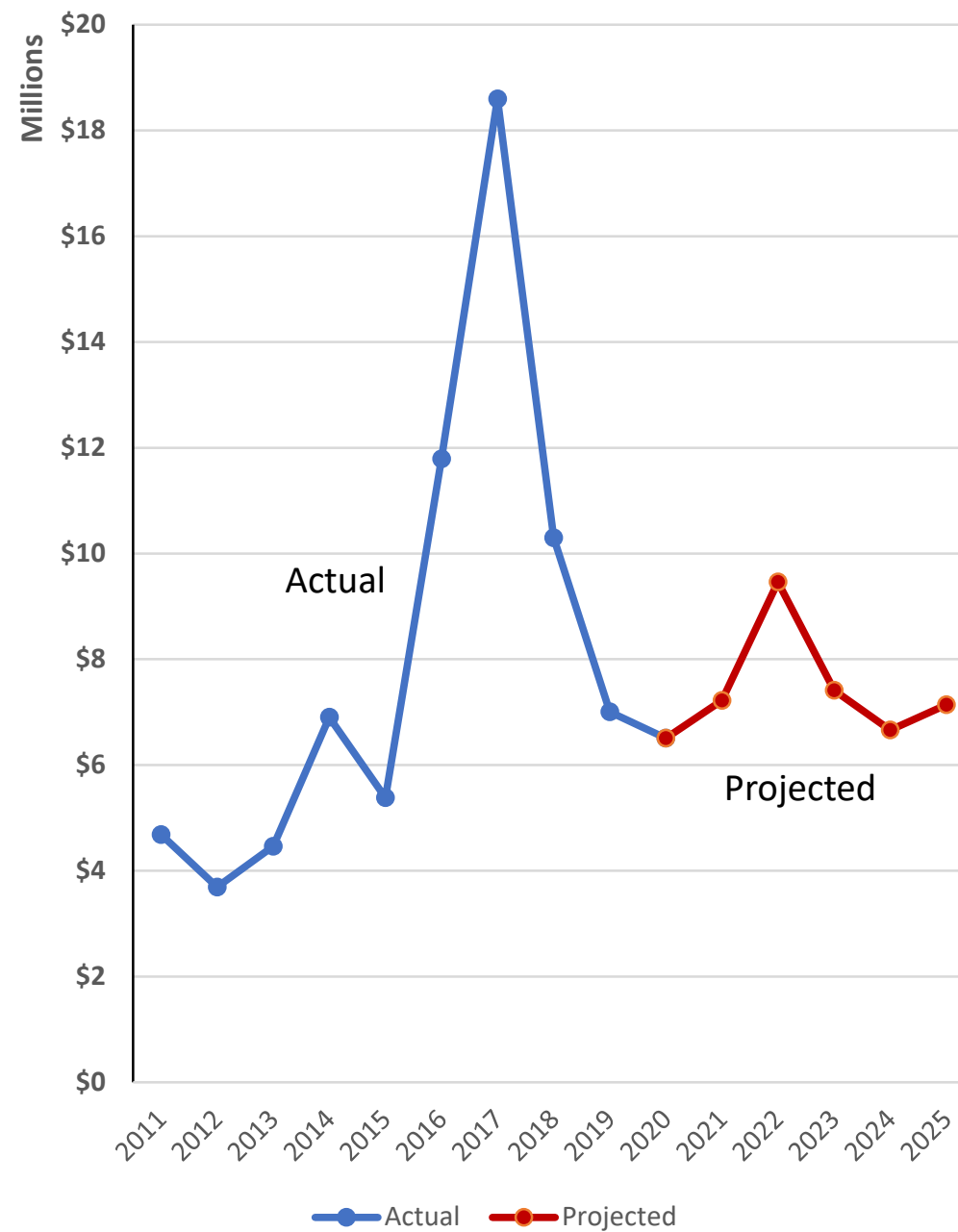


# 2021 Budget: Capital Projects

Major Capital Project



Total Capital Projects

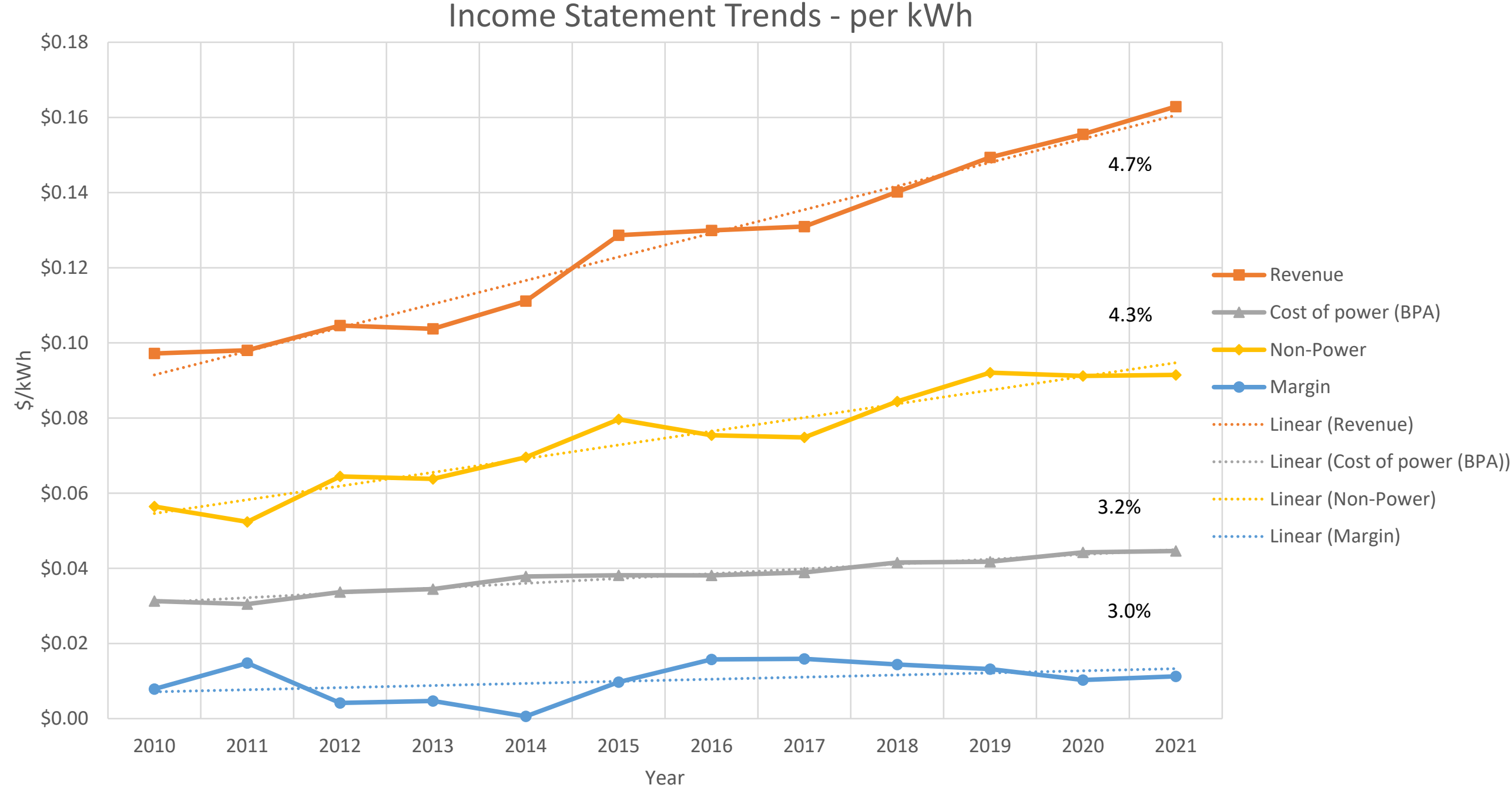


## Notes:

- Transmission: peak is Lopez San Juan submarine cable
- Distribution: Normal under-grounding to improve reliability, Decatur substation upgrade, grid storage project
- Grid Control Backbone: Expansion to improve:
  - Reliability
  - Field communications
  - Preparing for intermittent local renewable energy resources
- Other: Replacement of aging bucket and line trucks



# 2021 Budget: Components of Electric Rates



ORCAS POWER AND LIGHT COOPERATIVE

BUDGET EXECUTIVE SUMMARY

|    |  | A.<br>Audited<br>Year End<br>12/31/2018 | B.<br>Audited<br>Year End<br>12/31/2019 | C.<br>Approved<br>Budget<br>12/31/2020 | D.<br>Projected<br>Year End<br>12/31/2020 | E.<br>Proposed<br>Budget<br>12/31/2021 | % Change<br>from 2020 | F.<br>Forecast<br>12/31/2022 | G.<br>Forecast<br>12/31/2023 | H.<br>Forecast<br>12/31/2024 | I.<br>Forecast<br>12/31/2025 | Comments  |
|----|--|---|---|--|---|--|-----------------------|------------------------------|------------------------------|------------------------------|------------------------------|---|
| 1  | kWh Purchases  | 217,948,063                             | 221,868,514                             | 212,000,000                            | 218,268,618                               | 216,000,000                            | -1.0%                 | 216,000,000                  | 217,000,000                  | 218,000,000                  | 219,000,000                  | OPALCO estimate conservatively below BPA estimate of 219M kWh   |
| 2  | % Rate Increase *  | 5%                                      | 6%                                      | 3%                                     | 3%  | 0.0%                                   |                       | 4.0%                         | 5.0%                         | 6.0%                         | 7.0%                         |   |
| 3  | % Total Revenue Increase                                 | 5%                                      | 6%                                      | 3%                                     | 3%  | -1.2%                                  |                       | 4.3%                         | 5.4%                         | 6.2%                         | 7.2%                         | 2021 operating revenue decrease is -0.7% due to unknown weather pettern, especially in Q4   |
| 4  | Total Revenue  | 29,683,000                              | 31,360,000                              | 32,185,000                             | 32,225,000                                | 31,827,000                             | -1.2%                 | 33,199,000                   | 34,983,000                   | 37,169,000                   | 39,861,000                   | Revenue necessary to meet budget and cash flow requirements   |
| 5  | Cost of power  | 9,054,000                               | 9,262,000                               | 9,533,000                              | 9,661,000                                 | 9,735,000                              | 0.8%                  | 10,223,000                   | 10,684,000                   | 11,217,000                   | 11,774,000                   | BPA rate increases for unanticipated surcharges, power and financial reserve cost recovery estimated at > +2%   |
| 6  | Operations & G&A   | 10,181,000                              | 11,178,000                              | 11,931,000                             | 11,875,000                                | 12,258,000                             | 3.2%                  | 12,975,000                   | 13,603,000                   | 14,312,000                   | 15,105,000                   | General inflation of 2% and 2021 employee count target of 47  |
| 7  | Depr, Int & Taxes  | 7,441,000                               | 8,189,000                               | 8,605,000                              | 8,447,000                                 | 8,816,000                              | 4.4%                  | 9,114,000                    | 9,537,000                    | 10,023,000                   | 10,467,000                   | Depreciation on new assets & interest on related borrowings   |
| 8  |  | 26,676,000                              | 28,629,000                              | 30,069,000                             | 29,983,000                                | 30,809,000                             | 2.8%                  | 32,312,000                   | 33,824,000                   | 35,552,000                   | 37,346,000                   |   |
| 9  | Net Margins  | \$ 3,007,000                            | \$ 2,731,000                            | \$ 2,116,000                           | \$ 2,242,000                              | \$ 1,018,000                           | -54.6%                | \$ 887,000                   | \$ 1,159,000                 | \$ 1,617,000                 | \$ 2,515,000                 | Lower end of acceptable margin in order cover capital credit retirements only   |
| 10 | TIER   | 2.67                                    | 2.40                                    | 2.06                                   | 2.11                                      | 1.50                                   |                       | 1.44                         | 1.56                         | 1.75                         | 2.14                         | Aiming for lower end of TIER range. Fluctuates with changes in weather & borrowing rates.   |
| 11 | Equity % of Total Cap                                    | 40.3%                                   | 39.7%                                   | 38.8%                                  | 36.7%                                     | 35.8%                                  |                       | 35.9%                        | 35.9%                        | 36.3%                        | 37.4%                        | Conitinue to manage closely over next several years to ensure we accellerate trending upwards for future capital investment.                            |
| 12 | Equity   | 38,633,000                              | 38,403,000                              | 37,719,000                             | 38,164,000                                | 37,637,000                             | -1.4%                 | 37,577,000                   | 38,603,000                   | 40,563,000                   | 43,866,000                   | Equity trending upwards (gradual building for next large capital investment)  |
| 13 | Long Term Debt   | 57,211,000                              | 58,240,000                              | 60,698,000                             | 65,840,000                                | 67,577,000                             | 2.6%                  | 67,155,000                   | 69,053,000                   | 71,182,000                   | 73,277,000                   | Borrowings growth slows as operations generate cash flow to cover much of the new capital project investment.   |
| 14 | Capital Spending   | (11,181,000)                            | (7,004,861)                             | (5,837,000)                            | (6,507,000)                               | (7,222,000)                            | 11.0%                 | (9,461,000)                  | (7,413,000)                  | (6,661,000)                  | (7,140,000)                  | Capital spending returning to normal range of \$6-8M in 2021-2025. 2022 includes one substation transformer replacement and 50% of new battery project. |
| 15 | Capital Credit Retirement (net)                          | (1,084,000)                             | (1,115,000)                             | (1,051,000)                            | (1,051,000)                               | (1,051,000)                            | 0.0%                  | (1,118,000)                  | (1,118,000)                  | (1,184,000)                  | (1,184,000)                  | Smoothing of capital credit retirements (reduces volatility in margin, cash and equity requirements)  |
| 16 | Annual HDD   | 1,190                                   | 865                                     | 1,367                                  | 1,400                                     | 1,398                                  |                       | 1,350                        | 1,356                        | 1,363                        | 1,369                        | HDD definition: Number of degrees that a day's average temperature is below 50 degrees Fahrenheit   |
| 17 | kWh per HDD  | 183,150                                 | 256,495                                 | 155,084                                | 155,906                                   | 154,506                                |                       | 160,000                      | 160,029                      | 159,941                      | 159,971                      |   |
| 18 | * Assumes average residential usage of 1000 kWh / month. |   |   |  |   |  |                       |                              |                              |                              |                              |   |

ORCAS POWER AND LIGHT COOPERATIVE

RATE SENSITIVITY

Proposed 2021 Budget Figures; Future Years for Reference Only

|  | A.<br>Budget<br>12/31/2021 | B.<br>Forecast<br>12/31/2022 | C.<br>Forecast<br>12/31/2023 | D.<br>Forecast<br>12/31/2024 | E.<br>Forecast<br>12/31/2025 | Comment  |
|--|----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|--|
| kWh Purchases  | 216,000,000                | 216,000,000                  | 217,000,000                  | 218,000,000                  | 219,000,000                  |  |
| BASE LINE: No Rate Change (Not Financially Viable Long Term) |                            |                              |                              |                              |                              |  |
| % Avg. Residential Rate Increase                             | 0.0%                       | 0.0%                         | 0.0%                         | 0.0%                         | 0.0%                         | Baseline only to see the implication of no rate increase.  |
| % Revenue Increase (Decrease)                                | -1.2%                      | 0.3%                         | 0.5%                         | 0.4%                         | 0.4%                         |  |
| Margin   | \$ 1,017,560               | \$ (374,514)                 | \$ (1,735,529)               | \$ (3,346,793)               | \$ (5,021,934)               |  |
| TIER   | 1.50                       | 0.81                         | 0.15                         | (0.55)                       | (1.29)                       |  |
| Equity % of Total Capital                                    | 35.8%                      | 35.1%                        | 33.3%                        | 30.6%                        | 27.1%                        |  |
| Incremental Debt (FFB & 0% RESP)                             | \$ 750,000                 | \$ 3,000,000                 | \$ 4,800,000                 | \$ 4,900,000                 | \$ 5,100,000                 |  |
| OPTION 1 - Recommended                                       |                            |                              |                              |                              |                              |  |
| % Avg. Residential Rate Increase                             | 0.0%                       | 4.0%                         | 5.0%                         | 6.0%                         | 7.0%                         | Recommended rate/revenue increase as this profile allows for rate stability while also stabilizing & building equity in future years. Please note we will be revisiting these rate increases annually. |
| % Revenue Increase   | -0.7%                      | 4.3%                         | 5.4%                         | 6.3%                         | 7.3%                         |  |
| Margin   | \$ 1,017,560               | \$ 887,055                   | \$ 1,159,415                 | \$ 1,617,574                 | \$ 2,514,877                 |  |
| TIER   | 1.50                       | 1.44                         | 1.56                         | 1.75                         | 2.14                         |  |
| Equity % of Total Capital                                    | 35.8%                      | 35.9%                        | 35.9%                        | 36.3%                        | 37.4%                        |  |
| Incremental Debt (FFB & 0% RESP)                             | \$ 750,000                 | \$ 3,000,000                 | \$ 4,800,000                 | \$ 4,900,000                 | \$ 5,100,000                 |  |
| OPTION 2 - Target TIER 2                                     |                            |                              |                              |                              |                              |  |
| % Avg. Residential Rate Increase                             | 4.0%                       | 4.0%                         | 4.0%                         | 5.0%                         | 4.0%                         | TIER is sufficient to maintain capital credit retirement cycle and build equity needed for future capital projects, though rate increase is higher than desired for short-term planning.               |
| % Revenue Increase   | 3.3%                       | 4.3%                         | 4.4%                         | 5.3%                         | 4.3%                         |  |
| Margin   | \$ 2,279,126               | \$ 2,199,441                 | \$ 2,202,687                 | \$ 2,373,425                 | \$ 2,208,123                 |  |
| TIER   | 2.12                       | 2.10                         | 2.07                         | 2.10                         | 2.01                         |  |
| Equity % of Total Capital                                    | 36.5%                      | 37.4%                        | 37.9%                        | 38.7%                        | 39.5%                        |  |
| Incremental Debt (FFB & 0% RESP)                             | \$ 750,000                 | \$ 3,000,000                 | \$ 4,800,000                 | \$ 4,900,000                 | \$ 5,100,000                 |  |



ORCAS POWER AND LIGHT COOPERATIVE

RATE SENSITIVITY

Proposed 2021 Budget Figures; Future Years for Reference Only

|                                  |  | A.<br>Budget<br>12/31/2021 | B.<br>Forecast<br>12/31/2022 | C.<br>Forecast<br>12/31/2023 | D.<br>Forecast<br>12/31/2024 | E.<br>Forecast<br>12/31/2025 | Comment  |
|----------------------------------|--|----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|--|
| kWh Purchases                    |  | 216,000,000                | 216,000,000                  | 217,000,000                  | 218,000,000                  | 219,000,000                  |  |
| OPTION 3 - example               |  |                            |                              |                              |                              |                              |  |
| % Avg. Residential Rate Increase |  | 0.0%                       | 0.0%                         | 6.0%                         | 6.0%                         | 6.0%                         | Example only - not financially viable              |
| % Revenue Increase               |  | -1.2%                      | 0.3%                         | 6.4%                         | 6.2%                         | 6.3%                         |  |
| Margin                           |  | \$ 1,017,560               | \$ (374,514)                 | \$ 143,528                   | \$ 537,192                   | \$ 1,000,884                 |  |
| TIER                             |  | 1.50                       | 0.81                         | 1.07                         | 1.25                         | 1.46                         |  |
| Equity % of Total Capital        |  | 35.8%                      | 35.1%                        | 34.5%                        | 34.3%                        | 34.7%                        |  |
| Incremental Debt (FFB & 0% RESP) |  | \$ 750,000                 | \$ 3,000,000                 | \$ 4,800,000                 | \$ 4,900,000                 | \$ 5,100,000                 |  |
| OPTION 4 - example               |  |                            |                              |                              |                              |                              |  |
| % Avg. Residential Rate Increase |  | 0.0%                       | 0.0%                         | 8.0%                         | 8.0%                         | 8.0%                         | Rate shock to members & insufficient equity growth |
| % Revenue Increase               |  | -0.7%                      | 0.3%                         | 8.4%                         | 8.3%                         | 8.3%                         |  |
| Margin                           |  | \$ 1,017,560               | \$ (374,514)                 | \$ 769,881                   | \$ 1,882,370                 | \$ 3,166,796                 |  |
| TIER                             |  | 1.50                       | 0.81                         | 1.38                         | 1.87                         | 2.44                         |  |
| Equity % of Total Capital        |  | 35.8%                      | 35.1%                        | 34.9%                        | 35.5%                        | 37.1%                        |  |
| Incremental Debt (FFB & 0% RESP) |  | \$ 750,000                 | \$ 3,000,000                 | \$ 4,800,000                 | \$ 4,900,000                 | \$ 5,100,000                 |  |

ORCAS POWER AND LIGHT COOPERATIVE  
 STATEMENT OF OPERATIONS

|   | A.<br>Audited<br>Year End<br>12/31/2018 | B.<br>Audited<br>Year End<br>12/31/2019 | C.<br>Approved<br>Budget<br>12/31/2020 | D.<br>Projected<br>Year End<br>12/31/2020 | E.<br>Proposed<br>Budget<br>12/31/2021 | % Change<br>from 2020 | F.<br>Forecast<br>12/31/2022 | G.<br>Forecast<br>12/31/2023 | H.<br>Forecast<br>12/31/2024 | I.<br>Forecast<br>12/31/2025 |
|---|---|---|--|---|--|-----------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| 1 OPERATING REVENUES                      |   |   |  |   |  |                       |                              |                              |                              |                              |
| 2 kWh Purchases                           | 217,948,000                             | 221,869,000                             | 212,000,000                            | 218,268,618                               | 216,000,000                            |                       | 216,000,000                  | 217,000,000                  | 218,000,000                  | 219,000,000                  |
| 3 % Rate Increase                         |   | 6%                                      | 3%                                     |   | 0.0%                                   |                       | 4.0%                         | 5.0%                         | 6.0%                         | 7.0%                         |
| 4 % Operating Revenue Increase            | 3%                                      | 6%                                      | 3%                                     | 2%  | -0.7%                                  |                       | 4.3%                         | 5.4%                         | 6.3%                         | 7.3%                         |
| 3 Residential                             | \$ 21,373,137                           | \$ 22,679,087                           | \$ 23,156,921                          | \$ 23,623,022                             | \$ 23,478,420                          | -1%                   | \$ 24,423,539                | \$ 25,729,278                | \$ 27,361,690                | \$ 29,371,517                |
| 4 Commercial                              | 7,655,416                               | 7,999,086                               | 8,411,026                              | 7,913,942                                 | 7,865,526                              | -1%                   | 8,181,976                    | 8,619,173                    | 9,165,748                    | 9,838,693                    |
| 5 Other                                   | 234,822                                 | 260,371                                 | 252,931                                | 145,051                                   | 109,926                                | -24%                  | 215,301                      | 250,426                      | 250,426                      | 250,426                      |
| 6 Total operating revenue                 | 29,263,375                              | 30,938,545                              | 31,820,878                             | 31,682,015                                | 31,453,872                             | -1%                   | 32,820,816                   | 34,598,877                   | 36,777,864                   | 39,460,636                   |
| 7   |   |   |  |   |  |                       |                              |                              |                              |                              |
| 8 OPERATING EXPENSES                      |   |   |  |   |  |                       |                              |                              |                              |                              |
| 9 Cost of power                           | 9,053,663                               | 9,262,362                               | 9,532,908                              | 9,660,540                                 | 9,735,462                              | 1%                    | 10,222,604                   | 10,684,114                   | 11,216,677                   | 11,773,990                   |
| 10 Transmission                           | 252,433                                 | 458,165                                 | 377,727                                | 454,357                                   | 428,447                                | -6%                   | 443,858                      | 457,594                      | 475,500                      | 496,185                      |
| 11 Distribution - operations              | 3,365,842                               | 3,604,825                               | 3,913,175                              | 3,617,304                                 | 3,636,851                              | 1%                    | 3,878,726                    | 4,089,790                    | 4,325,291                    | 4,580,937                    |
| 12 Distribution - maintenance             | 1,945,822                               | 2,170,783                               | 2,324,623                              | 2,641,316                                 | 2,733,082                              | 3%                    | 2,876,430                    | 2,972,630                    | 3,122,621                    | 3,303,613                    |
| 13 Consumer accounts                      | 1,014,503                               | 1,097,439                               | 1,153,739                              | 1,042,080                                 | 1,003,546                              | -4%                   | 1,133,011                    | 1,221,087                    | 1,292,818                    | 1,370,999                    |
| 14  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 15 General and administration             |   |   |  |   |  |                       |                              |                              |                              |                              |
| 16 Administration G&A                     | 3,191,624                               | 3,390,513                               | 3,593,738                              | 3,701,215                                 | 3,957,880                              | 7%                    | 4,107,913                    | 4,265,173                    | 4,475,002                    | 4,706,983                    |
| 17 Energy services G&A                    | 375,582                                 | 395,013                                 | 505,230                                | 331,348                                   | 408,389                                | 23%                   | 445,347                      | 506,876                      | 530,676                      | 556,996                      |
| 18 Subsidiary Charges                     | 34,920                                  | 61,378                                  | 63,219                                 | 87,868                                    | 89,625                                 | 2%                    | 89,625                       | 89,625                       | 89,625                       | 89,625                       |
| 19 Total general and administration       | 3,602,127                               | 3,846,904                               | 4,162,187                              | 4,120,431                                 | 4,455,894                              | 8%                    | 4,642,885                    | 4,861,674                    | 5,095,303                    | 5,353,604                    |
| 20  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 21 Depreciation and amortization          | 4,528,224                               | 4,923,805                               | 5,216,895                              | 4,998,321                                 | 5,279,563                              | 6%                    | 5,521,236                    | 5,794,827                    | 6,082,098                    | 6,383,732                    |
| 22 Taxes                                  | 1,365,016                               | 1,444,843                               | 1,514,661                              | 1,488,008                                 | 1,573,530                              | 6%                    | 1,663,938                    | 1,759,570                    | 1,854,109                    | 1,956,218                    |
| 23  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 24 Total operating expenses               | 25,127,630                              | 26,809,125                              | 28,195,915                             | 28,022,357                                | 28,846,375                             | 3%                    | 30,382,688                   | 31,841,286                   | 33,464,417                   | 35,219,278                   |
| 25  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 26 Operating margins before fixed charges | 4,135,745                               | 4,129,420                               | 3,624,963                              | 3,659,658                                 | 2,607,497                              | -29%                  | 2,438,128                    | 2,757,591                    | 3,313,447                    | 4,241,358                    |
| 27  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 28 FIXED CHARGES                          |   |   |  |   |  |                       |                              |                              |                              |                              |
| 29 Interest on long-term debt             | 1,547,868                               | 1,820,581                               | 1,873,848                              | 1,960,291                                 | 1,962,740                              | 0%                    | 1,928,887                    | 1,982,153                    | 2,087,257                    | 2,126,795                    |
| 30  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 31 Total fixed charges                    | 1,547,868                               | 1,820,581                               | 1,873,848                              | 1,960,291                                 | 1,962,740                              | 0%                    | 1,928,887                    | 1,982,153                    | 2,087,257                    | 2,126,795                    |
| 32  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 33 Operating margins after fixed charges  | 2,587,877                               | 2,308,838                               | 1,751,115                              | 1,699,367                                 | 644,757                                | -62%                  | 509,241                      | 775,438                      | 1,226,190                    | 2,114,563                    |
| 34  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 35 PATRONAGE CAPITAL CREDITS              | 143,090                                 | 125,254                                 | 132,375                                | 126,110                                   | 129,893                                | 3%                    | 133,140                      | 137,134                      | 141,934                      | 147,611                      |
| 36  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 37 Net operating margins                  | 2,730,967                               | 2,434,092                               | 1,883,490                              | 1,825,477                                 | 774,650                                | -58%                  | 642,381                      | 912,572                      | 1,368,124                    | 2,262,174                    |
| 38  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 39 NON-OPERATING MARGINS                  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 40 Interest income                        | 176,305                                 | 202,598                                 | 160,724                                | 171,461                                   | 150,461                                | -12%                  | 152,236                      | 154,419                      | 157,042                      | 160,145                      |
| 41 Other income                           | 100,097                                 | 94,235                                  | 71,134                                 | 245,432                                   | 92,449                                 | -62%                  | 92,438                       | 92,424                       | 92,408                       | 92,558                       |
| 42  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 43 Net non-operating margins              | 276,402                                 | 296,833                                 | 231,858                                | 416,893                                   | 242,910                                | -42%                  | 244,674                      | 246,843                      | 249,450                      | 252,703                      |
| 44  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 45 NET MARGINS                            | \$ 3,007,369                            | \$ 2,730,925                            | \$ 2,115,348                           | \$ 2,242,370                              | \$ 1,017,560                           | -55%                  | \$ 887,055                   | \$ 1,159,415                 | \$ 1,617,574                 | \$ 2,514,877                 |
| 46  |   |   |  |   |  |                       |                              |                              |                              |                              |
| 47 TIER                                   | 2.67                                    | 2.40                                    | 2.06                                   | 2.11                                      | 1.50                                   | -29%                  | 1.44                         | 1.56                         | 1.75                         | 2.14                         |
| 48 Equity % of Total Capital              | 41.3%                                   | 39.9%                                   | 37.8%                                  | 35.6%                                     | 35.8%                                  | 0%                    | 35.9%                        | 35.9%                        | 36.3%                        | 37.4%                        |

ORCAS POWER AND LIGHT COOPERATIVE

CAPITAL PROJECTS BUDGET

|                     |  |  | A.         | B.         | C.          | D.            | E.          | F.          | G.         | H.         | I.         | J.     |             |         | K.   |
|---------------------|--|--|------------|------------|-------------|---------------|-------------|-------------|------------|------------|------------|--------|-------------|---------|--|
|                     |  |  | Actual     | Actual     | Budget      | Projected     | Proposed    | Forecast    | Forecast   | Forecast   | Forecast   | Safety | Reliability | Environ | Comments   |
| RUS CWP DESCRIPTION |  |  | 12/31/2018 | 12/31/2019 | 2020        | Year End 2020 | Budget 2021 | 2022        | 2023       | 2024       | 2025       |        |             |         |  |
| 1                   | DISTRIBUTION                               |  |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 2                   | 100  | New Services   | \$ 397,842 | \$ 389,793 | \$ 397,000  | \$ 400,482    | \$ 416,000  | \$ 432,000  | \$ 449,000 | \$ 484,000 | \$ 484,000 |        |             |         |  |
| 3                   | 200  | New Tie Lines  | 3,147      | (6,874)    | 115,000     | 315,261       | 200,000     | 300,000     | -          | 1,300,000  | -          | *      |             |         | 2024 Construction for Submarine Cable - Olga to White Beach                    |
| 4                   | 300  | Conversions and Line Changes   | 754,232    | 751,525    | 1,165,000   | 661,110       | 1,680,000   | 1,300,000   | 420,000    | 75,000     | 120,000    | *      | *           |         | Center Island Submarine Cable (2021 timing with member owned islands)          |
| 5                   | 400  | New Substations, switching station, metering point, etc.                           | -          | -          | -           | -             | -           | -           | -          | -          | -          |        |             |         |  |
| 6                   | 500  | Substation, Switching Station, Metering Point Changes                              | 1,502,357  | 1,312,375  | 1,005,000   | 1,133,475     | 1,980,000   | 4,200,000   | 2,475,000  | 60,000     | 1,600,000  | *      | *           |         | 2021-22 San Juan Microgrid, 2022 Olga Transformer                              |
| 7                   | 600  | Miscellaneous Distribution Equipment   |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 8                   | 601  | Transformers & Meters  | 801,046    | 619,180    | 646,000     | 544,971       | 672,000     | 699,000     | 727,000    | 1,218,000  | 1,109,000  | *      | *           | *       | 2024-2029 Smart Metering deployment  |
| 9                   | 602  | Sets of Service Wires to increase Capacity   | -          | -          | -           |               |             | -           | -          | -          | -          |        |             |         |  |
| 10                  | 603  | Sectionalizing Equipment   | 1,063      | 1,258      | 140,000     | 104,222       | 315,000     | 300,000     | 300,000    | 500,000    | 450,000    | *      | *           |         | SCADA controlled Switchgear deployments and replacement                        |
| 11                  | 604  | Regulators   | 114,440    | (1,499)    | 100,000     | 36,969        | 150,000     | 140,000     | 100,000    | 100,000    | 20,000     | *      | *           |         | Deployment of regulators in substations to better stabilize system voltage     |
| 12                  | 606  | Ordinary Replacements  | 146,639    | 226,830    | 350,000     | 390,061       | 250,000     | 335,000     | 271,000    | 282,000    | 294,000    | *      | *           |         | 2020 exceeded failure rate and increased work efforts due to COVID distancing  |
| 13                  | 607  | Overhead to Underground Conversions  |            |            | 70,000      | 25,759        | 95,000      | 50,000      | 60,000     | 63,000     | 66,000     | *      | *           |         |  |
| 14                  | 608  | Underground Dist. Cable Replacements   | 1,679,837  | 2,350,837  | 1,600,000   | 1,868,597     | 1,637,000   | 1,605,000   | 1,670,000  | 1,737,000  | 1,705,000  | *      | *           | *       | Increased work efforts due to COVID distancing                                 |
| 15                  | 700  | Other Distribution Items   |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 16                  | 701  | Engineering Fees   | -          | -          | -           |               | -           | -           | -          | -          | -          |        |             |         |  |
| 17                  | 704  | LMS & SCADA  | 139,991    | 138,265    | 70,000      | 63,651        | 213,000     | 223,000     | 65,000     | 67,000     | 69,000     | *      | *           |         | New SCADA software allowing for automation and reporting                       |
| 18                  | 705  | AMR  | 232,872    | 44,876     | 55,000      | -             | -           | -           | -          | -          | -          |        |             |         |  |
| 19                  | 706  | Communications/Fiber   | 534,627    | 157,426    | 110,000     | 92,266        | 150,000     | 180,000     | 125,000    | 130,000    | 136,000    | *      | *           | *       | Replacement of original backbone (48 fiber add 96) and active site maintenance |
| 20                  | TRANSMISSION                               |  |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 21                  | 800  | New Tie Line   | -          | -          | -           |               |             | -           | -          | -          | -          |        |             |         |  |
| 22                  | 900  | Substations, switching station, metering point, etc.                               | 526,038    | -          | 110,000     | 61,173        | 71,000      | 400,000     | 850,000    | 600,000    | 1,300,000  |        |             |         | 2022-25 Cathodic Protection for Submarine Cables with ROV/Dive Survey          |
| 23                  | 1000                                       | Line Changes   | 2,672,572  | 196,951    | 100,000     | 30,893        | 350,000     | 364,000     | 379,000    | 645,000    | 411,000    | *      | *           |         | Delayed transmission pole replacements to 2021-2025                            |
| 24                  | 1100                                       | Other Transmission   | -          | -          | -           | -             | -           | -           | -          | -          | -          |        |             |         |  |
| 25                  | GENERATION                                 |  |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 26                  | 1200                                       | Generation   | -          | -          | -           | -             | 150,000     | 150,000     | -          | -          | -          |        | *           | *       |  |
| 27                  | OTHER                                      |  |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 28                  | 1300                                       | Facilities   | 77,349     | 574,560    | 355,000     | 661,170       | 247,000     | 208,000     | 60,000     | 21,000     | 22,000     | *      |             |         | FH generator and crew facility upgrades  |
| 29                  | 1400                                       | Acquisitions   | 219,235    | -          | 60,000      | 519,133       | 40,000      | 20,000      | 60,000     | -          | -          |        |             |         | Subject to renewable generation opportunities                                  |
| 30                  | 1500                                       | All Other  |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 31                  | 1501                                       | Transportation/Equipment/Tools/Radios  | 612,005    | 596,410    | 539,000     | 642,957       | 271,500     | 553,000     | 232,000    | 242,000    | 252,000    | *      | *           | *       |  |
| 32                  | 1502                                       | Office Equipment/Furniture/Etc.  | 9,746      | 20,662     | 80,000      | 72,945        | 15,000      | 16,000      | 17,000     | 18,000     | 19,000     |        |             |         |  |
| 33                  | 1503                                       | Computer/Servers/Software  | 264,369    | 310,903    | 222,000     | 206,325       | 133,000     | 33,000      | 35,000     | 37,000     | 39,000     | *      | *           |         | SCADA system cost (See Line 17)  |
| 34                  | 1504                                       | Community Solar (member funded)  | 984,612    | 40,263     | 1,500,000   | 908           | 1,500,000   | -           | -          | -          | -          |        | *           | *       | Shift of Community/Utility Solar to 2021                                       |
| 35                  | 1600                                       | Minor Projects   | 605,704    | 268,214    | 155,000     | 35,870        | 162,000     | 169,000     | 176,000    | 184,000    | 192,000    |        |             |         | Typical estimation for unanticipated project not exceeding \$100k per instance |
| 36                  | RUS CWP SUBTOTAL                           |  | 12,279,724 | 7,991,954  | 8,944,000   | 7,868,201     | 10,697,500  | 11,677,000  | 8,471,000  | 7,763,000  | 8,288,000  |        |             |         |  |
| 37                  | CONTRIBUTION IN AID OF CONSTRUCTION (CIAC) |  |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 38                  |  | New Services   | (448,823)  | (439,694)  | (408,000)   | (510,134)     | (425,000)   | (442,000)   | (460,000)  | (479,000)  | (499,000)  |        |             |         | Offset to Line 2 - New Services  |
| 39                  |  | Meters and Transformers  | (273,110)  | (280,290)  | (285,000)   | (290,021)     | (297,000)   | (309,000)   | (322,000)  | (335,000)  | (349,000)  |        |             |         | Offset to Line 8 - Transformers and Meters                                     |
| 40                  |  | Joint Projects   | (94,806)   | (266,480)  | (244,000)   | (41,406)      | (254,000)   | (265,000)   | (276,000)  | (288,000)  | (300,000)  |        |             |         | Offset to Lines 3,4,13,14 - Tie Lines, Conversion, OH to UG Conv., URD         |
| 41                  |  | WA DOC Grant Funding   | (180,000)  | -          | (670,000)   | (520,000)     | (1,000,000) | (1,200,000) | -          | -          | -          |        |             |         | Offset to Line 6 - Substations for San Juan Battery (CEF projects)             |
| 42                  |  | Community Solar Member Contributions   | (984,612)  | (627)      | (1,500,000) | -             | (1,500,000) | -           | -          | -          | -          |        |             |         | Offset to Line 34 - Community Solar  |
| 43                  | RUS CWP NET TOTAL                          |  | 10,298,373 | 7,004,861  | 5,837,000   | 6,506,640     | 7,221,500   | 9,461,000   | 7,413,000  | 6,661,000  | 7,140,000  |        |             |         |  |
| 44                  |  |  |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 45                  | Notes:                                     | 2020 - ~50% of capital projects are funded from rates and ~50% from borrowings.    |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 46                  |  | 2021 - ~50% of capital projects are funded from rates and ~50% from existing cash. |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 47                  |  | 2022 - \$2.6M from borrowings, \$2.2M from existing cash, remainder from rates     |            |            |             |               |             |             |            |            |            |        |             |         |  |
| 48                  |  | 2022-25 - ~50% of capital projects are funded from rates and ~50% from borrowings. |            |            |             |               |             |             |            |            |            |        |             |         |  |



ORCAS POWER AND LIGHT COOPERATIVE

STATEMENT OF CASH FLOW

NON GAAP

|   | A.<br>Projected<br>Year End<br>12/31/2020 | B.<br>Proposed<br>Budget<br>12/31/2021 | C.<br>Forecast<br>12/31/2022 | D.<br>Forecast<br>12/31/2023 | E.<br>Forecast<br>12/31/2024 | F.<br>Forecast<br>12/31/2025 |
|---|---|--|------------------------------|------------------------------|------------------------------|------------------------------|
| 1      % Rate Increase                            |   | 0.0%                                   | 4.0%                         | 5.0%                         | 6.0%                         | 7.0%                         |
| 2 Operating Activities                            |   |  |                              |                              |                              |                              |
| 3      Margins                                    | \$      2,242,000                         | \$ <b>1,018,000</b>                    | \$      887,000              | \$      1,159,000            | \$      1,618,000            | \$      2,515,000            |
| 4      Plus Depreciation/Amortization             | 4,998,000                                 | <b>5,280,000</b>                       | 5,521,000                    | 5,795,000                    | 6,082,000                    | 6,384,000                    |
| 5      Cash Flow Operations                       | 7,240,000                                 | <b>6,298,000</b>                       | 6,408,000                    | 6,954,000                    | 7,700,000                    | 8,899,000                    |
| 6   |   |  |                              |                              |                              |                              |
| 7 Plant Investment (Net)                          | (6,877,000)                               | <b>(7,589,000)</b>                     | (9,829,000)                  | (7,781,000)                  | (7,029,000)                  | (7,514,000)                  |
| 8 Cash Flows from Patronage Capital               | (1,051,000)                               | <b>(1,051,000)</b>                     | (1,118,000)                  | (1,118,000)                  | (1,184,000)                  | (1,184,000)                  |
| 9 Net Borrowings                                  | 10,577,000                                | <b>(880,000)</b>                       | (378,000)                    | 2,414,000                    | 1,736,000                    | 2,150,000                    |
| 10      Annual Estimated Cash Increase (decrease) | <u>\$      9,889,000</u>                  | <u>\$      <b>(3,222,000)</b></u>      | <u>\$      (4,917,000)</u>   | <u>\$      469,000</u>       | <u>\$      1,223,000</u>     | <u>\$      2,351,000</u>     |
| 11  |   |  |                              |                              |                              |                              |
| 12 RUS Capital Borrowings                         | 9,500,000                                 | -                                      | 2,600,000                    | 3,800,000                    | 3,400,000                    | 3,600,000                    |
| 13 0% RESP Borrowing                              | 1,100,000                                 | 750,000                                | 1,000,000                    | 1,000,000                    | 1,500,000                    | 1,500,000                    |
| 14 Gross Borrowings                               | <u>10,600,000</u>                         | <u>750,000</u>                         | <u>3,600,000</u>             | <u>4,800,000</u>             | <u>4,900,000</u>             | <u>5,100,000</u>             |

ORCAS POWER AND LIGHT COOPERATIVE

2021 - 2025 BUDGETED STAFFING LEVELS

|   | A.                           | B.                  | C.                  | D.                         |
|---|------------------------------|---------------------|---------------------|----------------------------|
|   |                              | ACTUAL              | APPROVED BUDGET     | APPROVED                   |
|   | DEPARTMENT                   | # EMPLOYEES<br>2020 | # EMPLOYEES<br>2021 | # EMPLOYEES<br>2022 - 2025 |
| 1 | Operations <sup>1</sup>      | 23.5                | 22.5                | 23.5                       |
| 2 | Engineering <sup>1</sup>     | 7.5                 | 7.5                 | 8.5                        |
| 3 | General Management           | 5                   | 5                   | 5                          |
| 4 | Technical Services           | 1                   | 1                   | 1                          |
| 5 | Member Services <sup>2</sup> | 6                   | 6.0                 | 6.5                        |
| 6 | Administration               | 4                   | 4                   | 4                          |
| 7 | Energy Savings <sup>2</sup>  | 1                   | 1.0                 | 1.5                        |
| 8 | Total                        | 48 <sup>3</sup>     | 47 <sup>4</sup>     | 50                         |

Notes:

- 1 Engineering & Operations Manager split between departments
- 2 Member & Energy Services Assistant Manager split between departments - vacant position
- 3 2020 budgeted positions were 51 - vacant Lopez linemen position, vacant Staking Tech position, vacant Member & Energy Services Assistant Manager
- 4 2021 unfunded positions, delayed re-hiring only, so the employee count drops. We hope to hire for the position(s) later in the year, if financial condition of the coop allows.

# OPALCO ORGANIZATIONAL CHART - 2021 BUDGET

## OPALCO MEMBERSHIP

BOARD OF DIRECTORS

DIRECTOR  
MADSEN (D1)

DIRECTOR  
GARLOCK (D3)

VICE PRESIDENT  
WHITFIELD (D4)

PRESIDENT  
DAUCIUNAS (D1)

SECRETARY/TREASURER  
SILVERSTEIN (D3)

DIRECTOR  
CHRISTMAS (D2)

DIRECTOR  
STRUTHERS (D2)

MANAGER OF ENGINEERING  
& OPERATIONS  
GUERRY

GENERAL MANAGER  
HILDRETH

MANAGER OF FINANCE &  
MEMBER SERVICES  
LOOMIS

SAN JUAN GENERAL  
FOREMAN  
EYLER

**SAN JUAN CREW**  
GUARD - LF  
FURBER  
PARSONS  
KERR  
OLSON  
**SUB TECH**  
VACANT/UNFUNDED\*  
**APPRENTICE**  
BLACK

ORCAS GENERAL  
FOREMAN  
FOWLER

**ORCAS CREW**  
WATERS - LF  
LOOK  
ROSS  
**SUB TECH**  
MINNIS  
**APPRENTICE**  
HOFMANN

LOPEZ GENERAL  
FOREMAN  
DENGLER

**LOPEZ CREW**  
SWANSON - LF  
BURLESON  
WARNER  
VACANT/UNFUNDED\*  
**SUB TECH**  
ZOERB  
**APPRENTICE**  
BAIR

SYSTEM ENGINEER  
SMALLWOOD

GIS TECHNICIAN  
MARTZ

WORK ORDER CLERK  
VACANT/UNFUNDED

E&O ADMIN SPECIALIST  
BOSSERT

METER TECHNICIAN  
HISER

SYSTEM DESIGN  
ENGINEER  
VEKVED

ENGINEERING  
TECHNICIANS  
TURNER  
LAGO

STAKING  
TECHNICIANS  
VACANT/  
UNFUNDED\* (ES)  
DEINES (ES)

MANAGER OF IT  
HEINZ

COMMUNICATIONS  
TECH  
TILSTRA (ES)  
HAROLD (FH)

INFO SYSTEM  
SPECIALIST  
VACANT/UNFUNDED

EXECUTIVE ASSISTANT  
KORAL

PUBLIC RELATIONS  
ADMINISTRATOR  
OLSON

COMMUNICATIONS  
SPECIALIST  
BOUCHEY

ROCK ISLAND COMMUNICATIONS  
SEE SEPARATE ORG CHART

ASSISTANT MANAGER OF  
MEMBER SERVICES  
VACANT/UNFUNDED\*

ENERGY SERVICES  
SPECIALIST  
VACANT  
UNFUNDED

ENERGY SERVICES  
COORDINATOR  
GROSS

MEMBER SERVICES  
SUPERVISOR  
WYCKOFF

MEMBER SERVICE  
REPRESENTATIVES  
GOFF (FH)  
BOURNE (FH)  
PENWELL (FH)  
GRISWOLD (ES)  
DANIELSON (ES)

HEAD ACCOUNTANT  
NEAL

ACCOUNTANT  
BEAL

SPECIAL PROJECTS  
COORDINATOR  
KELLY

PURCHASING  
BECKER

LEGEND

NON-BARGAINING UNIT POSITION

BARGAINING UNIT POSITION

\*Unfunded positions, delayed re-hiring only, so the employee count drops. We hope to hire for the position later in the year, if financial condition of the coop allows.



**2021 Budget COVID-19 Assumptions**

The 2021 budget includes \$200k in funding for continued COVID-19 relief measures. All indicators lead staff to prepare for a potential compounding of economic impacts on our membership as the pandemic continues. OPALCO’s 2020 COVID-19 relief measures have helped the membership to get through this challenging period to date, but the work is not nearly done. The uncertainties of the pandemic are carrying into 2021 and the membership has yet to face the restoration phase of getting back to work, reopening business (if possible) and getting OPALCO account balances caught up.

The following table shows members accounts in arrears at 90+ days for 2020 as well as two scenario cases for 2021 (projection & high case).

| Account Balances in Arrears 90+ |                 |                 |                |
|---------------------------------|-----------------|-----------------|----------------|
|                                 | 2020 YTD Actual | 2021 Projection | 2021 High Case |
| # of Accounts                   | 270             | 549             | 926            |
| \$ Outstanding of 90+           | \$ 71,660       | \$ 194,311      | \$ 606,817     |

The 2021 projection for 90+ account receivable in arrears uses a trend function based on Jan 2018 - Oct 2020 base period to capture seasonality trends as well as the increases seen in 2020. Similarly, the high-case scenario uses a multiplicative factor to scale up the number of accounts and dollar balances impacted.

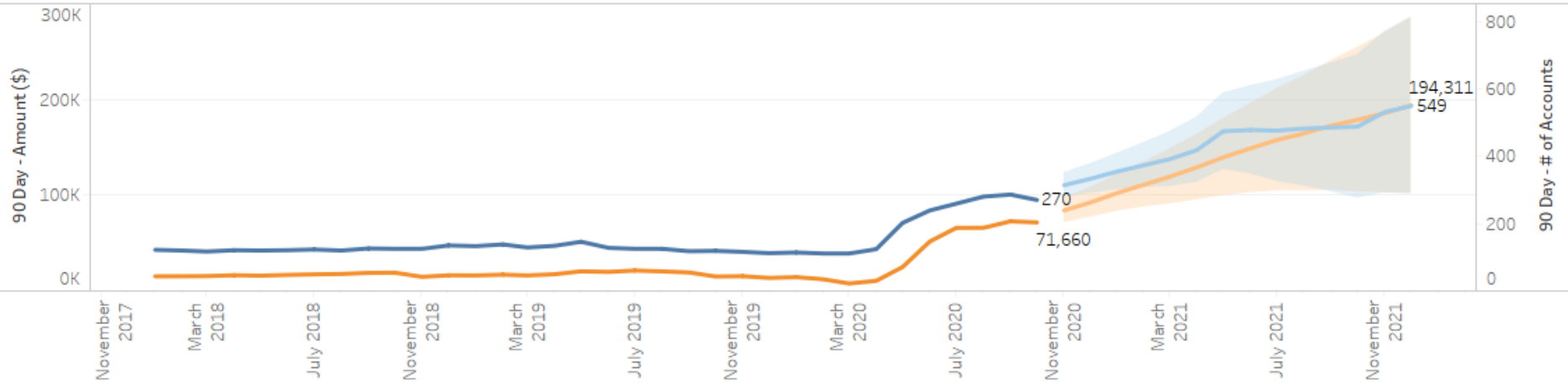
OPALCO will continue to follow our established write-off procedures to assess the collectability of accounts in arrears while closely monitoring the growing balances and working with our members to find solutions.

We currently have an allowance for uncollectable accounts of \$60k. Over the past 5 years annual write-offs have averaged ~\$8.1k, while 2020 projected write-offs are ~\$20.4k. For active accounts, OPALCO will always work with our members to set-up payment plans or similar solutions instead of defaulting to writing off balances. The current allowance for uncollectible balance’s is sufficient to cover a 3-fold increase in write-offs in 2021 which is reasonable at this time given the forecasts (see AR charts below).

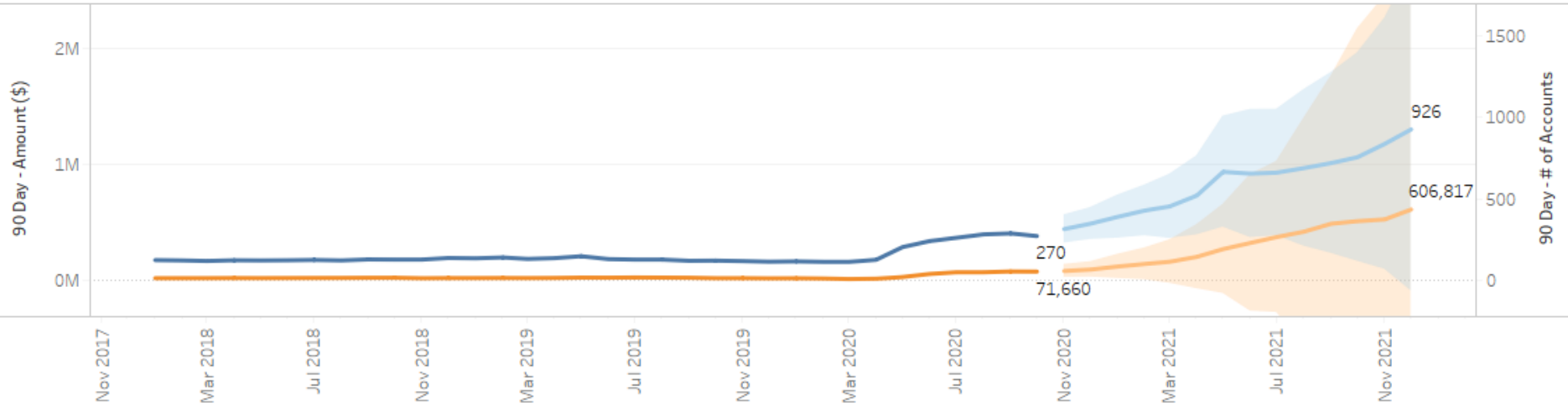
The following charts show member accounts in arrears at 30-, 60- and 90- days. The first chart shows the 2021 budget assumptions, based on similar trends as seen in 2020. The second chart shows a worst-case scenario, with accounts in 90+ day arrears nearly doubling and dollar amount in arrears tripling.

AR - 90+ Day with YE2021 Forecast (\$) - Assumed

The forecast (seen in the light blue with a shaded prediction confidence bands) ratched down due to the plateau.



AR - 90+ Day with YE2021 Forecast (\$) - High



The following table is a sensitivity analysis for 2021 COVID-19 financial impacts to margin, TIER and equity. The two factors include lost commercial revenue and cost impacts if a whole district line crew is unable to work and outage time is required to bring linemen in from another district.

The recommended 2021 Budget column is based on 2020 actuals; these data assume a similar pattern of business closures and overtime for line crews. The three scenarios represent increasing cost impacts due to additional commercial losses and increased overtime for crew members.

| 2021 Budget Sensitivity: COVID-19 Impact on Margin, TIER & Equity |                    |                            |                             |              |              |  |
|---|--------------------|----------------------------|-----------------------------|--------------|--------------|--|
|   | 2020<br>Projection | Recommended<br>2021 Budget | Financial Impact Scenario's |              |              | Notes  |
|   |                    |                            | 1                           | 2            | 3            |  |
| <b>Lost Commercial (CML) Revenue</b>                              |                    |                            |                             |              |              |  |
| CML revenue impact  | \$ (497,000)       | \$ (646,000)               | \$ (236,000)                | \$ (354,000) | \$ (590,000) | lost revenue s1 = 3% , s2 = 5% , s3 = 8%       |
| <b>Increase overtime to line crew</b>                             |                    |                            |                             |              |              |  |
| Crew expense impact   | \$0                | \$0                        | 7,500                       | 15,000       | 21,500       | ~\$7,500 / 2 weeks of overtime per downed crew |
| <b>Combined Impact</b>  |                    |                            |                             |              |              |  |
| Incremental drop in Margin  | \$0                | \$0                        | \$ (243,500)                | \$ (369,000) | \$ (611,500) |  |
| TIER  | 2.11               | 1.50                       | 1.38                        | 1.32         | 1.20         | Year End TEIR                                  |
| EQUITY  | 35.6%              | 35.8%                      | 35.6%                       | 35.5%        | 35.4%        | Year End Equity %                              |
| # of CML services impacted  |                    | 1,629                      | 50                          | 76           | 127          | Assumes avg CML rev of ~\$4.8k/services/year   |

As it was in 2020, participation in COVID-19 relief measures will be monitored closely and reported to the Board each month. If the patterns of need exceed budget assumptions, staff will review funding options with the Board.