OPALCO Cost-of-Service Analysis and Rate Design

OPALCO May Board Meeting

Results Update and Recommendations

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Agenda

+ Residential Class

- Review of OPALCO's rate design goals and residential rate design findings
- Illustrative residential rate update roadmap

+ Commercial Class

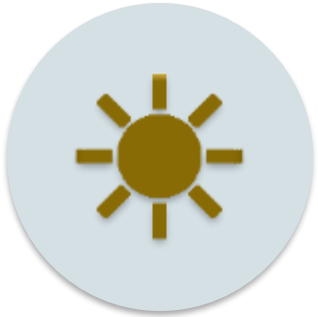
- Updated rates: small, large, and combined
- Bill impact for example commercial customers

+ Pump Class

- Updated rates results

+ Conclusions and Next Steps

E3's Understanding of OPALCO's Rate Design Goals



Ensure all customers, including seasonal customers and rooftop solar owners, fairly contribute to the fixed costs of the grid

Support the financial health of the utility, including during warm winters when electricity sales are low

Maintain energy affordability for low-income customers

Support customer understanding and ease of utility implementation

Recap from 5/15 Board presentation: Residential Rate Design Findings

1. **Under the updated 2025 COSA, the allocation of costs to the residential class increases by ~ 6%**
   - This is due to two factors:
     - Changes to class allocators: since 2018, residential load and demand are up; commercial load and demand are down
     - Changes to COSA methodology for certain cost categories to better align with standard practices
   - Standard practice is to adopt cost-based allocations, though OPALCO may choose to update cost allocations gradually
2. **Rate changes can better tie residential rates to the drivers of utility costs, with two key goals in mind:**
   - 1) Improving revenue certainty for the utility
   - 2) More fairly recovering costs from customers
   - Note: encouraging customer response / load flexibility is a valuable area of future study
3. **A demand charge can support these goals while limiting adverse impacts to small energy users**
   - There are many implementation options including monthly vs. annual, as well as options to average over top N hours
   - Implementing a demand charge would require extensive customer education
4. **Increasing the monthly fixed customer charge ($ / month) is another option to help achieve these goals**
   - However, would not distinguish large vs. small customers; would not as effectively recover costs from solar customers
   - Benefit is that residential customers are already familiar with customer charges

Example Residential Class Rate Timeline

2026 — *Gradually shift toward cost allocations from new COSA* — **2029**

2026

- **Increase fixed charge** (e.g., ~$60 -> ~$80 phased over time); same **increase to EAP credit**
- **Split fixed charge** into 4 clear categories
  - Capital equipment
  - Operations and maintenance
  - Customer service and billing
  - Administrative and business expenses
- Simultaneously **reduce volumetric charge** commensurate with fixed charge increase
- Fix customer **demand metering** issues and begin reporting monthly demand on bills
- **Electric charge adjuster**: Modify power cost adjuster to ensure full revenue collection (incl. margin & unforeseen emergencies)
- Staff have proposed **large service charge** as interim step (e.g., $X/mo for 400A and 600A)*

2027-2028

- Implement **demand charge** to more fairly recover costs from larger customers. (Transition from large service charge if put in place)
- Consider further changes to customer charge to better align with cost of service
- Conduct **marginal cost of service study** to develop a reflection of **OPALCO's hourly avoided costs**
- **Evaluate TOU rates** based on utility avoided costs and the new BPA contract

2029

- Evaluate **demand charge** success; consider changes to demand and fixed charges
- Adopt **pilot TOU rate** (if appropriate)

* Note: approximately 95% of residential customers are on 200A service
See next slide re: considerations

Large Service Charge – E3 Assessment of Pros and Cons

+ **Staff have proposed a large service charge: a monthly charge for customers with 400A or greater service**
  - This charge could be a temporary step as OPALCO works to implement a demand charge
+ **A service charge would aim to effectively serve as a proxy for customer demand**
  - OPALCO members have already paid the costs of service installation, so this charge would instead aim to reflect customer responsibility toward other utility costs
  - If charge is maintained, OPALCO could assess other ongoing costs for these services (e.g., transformer replacement)

Pros

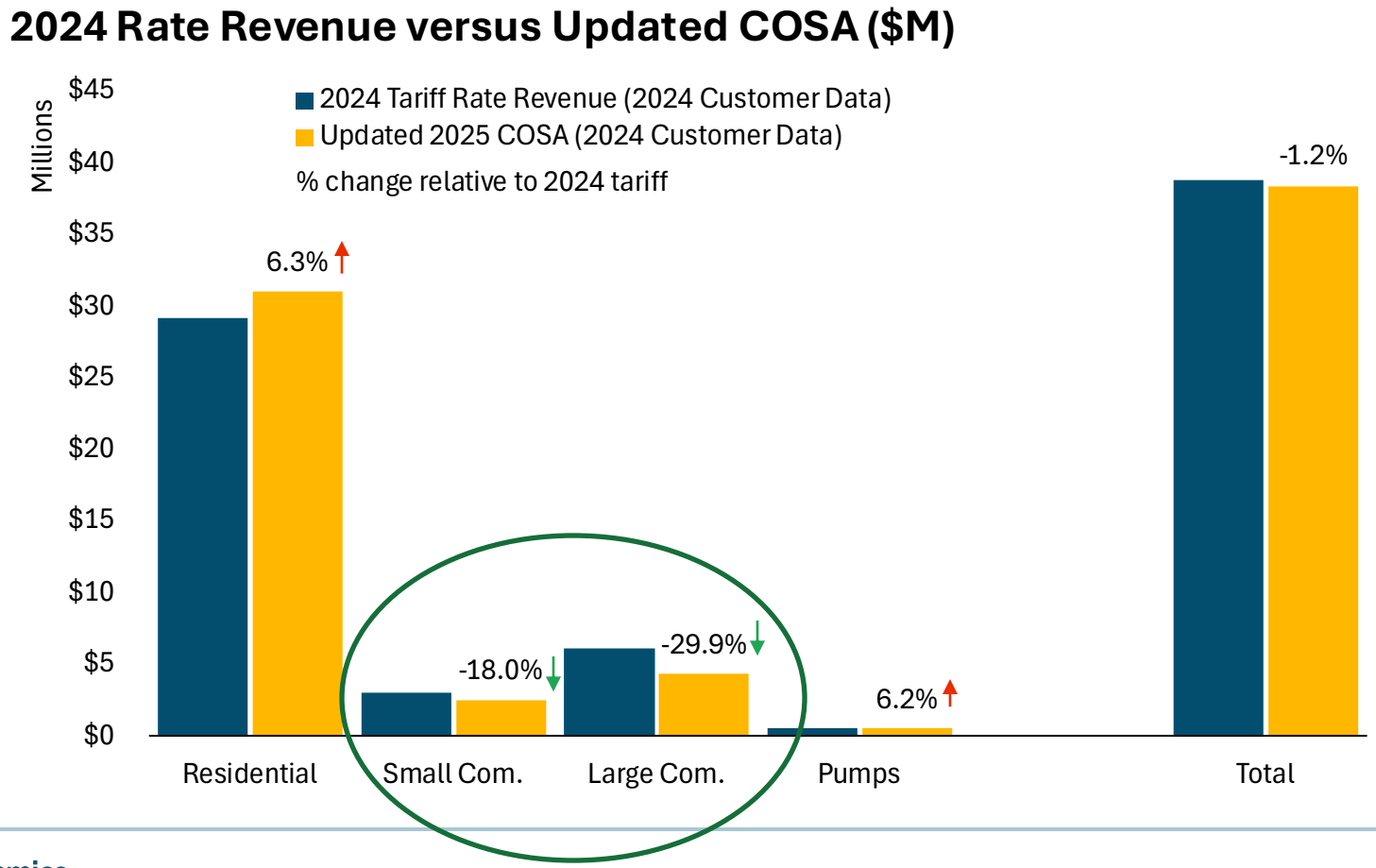
+ **Easy to implement – OPALCO knows every customer's service size**
+ **Simple to explain to customers**
+ **Staff believes there is support among membership for a large service charge**

Cons

+ **Only ~ 5% of customers have a large service; thus, would collect very little revenue**
+ **Existing data is limited; additional analysis needed to assess correlation**
  - Current does not show a strong correlation between service size and demand
+ **Risk of customer confusion in introducing a new charge and then a demand charge soon after**

Changes to revenue allocation can be phased in over time for smooth transition

To smooth rate impacts gradually, revenue allocation can be changed over time to align with the COSA over a period if 3-6 years. E.g., a 1-2% increase in residential costs each year, with commensurate decrease in commercial costs.



Rate Results - Commercial Class

Customer Charge
Demand Charge
Volumetric Charge

- **Relative to 2024 tariff, updated COSA reduces small and large commercial rates**
  - Small commercial down 18%, large commercial down 30% (total revenue requirement)
- **Combining the commercial classes would simplify the rate; and result in a rate in between the updated small and commercial rates (lower for small commercial, higher for large commercial)**
  - The combined rate would maintain the large commercial rate structure while scaling rate components to reflect combined small and large commercial COSA costs and combined small and large commercial billing determinants
  - Given the significant decline in cost allocation, this rate would be significantly lower than existing rates for both classes
  - The existing tiered demand structure can help distinguish and protect smaller customers
- **The customer charge can be split into clear bill categories; electric charge adjuster can be implemented**

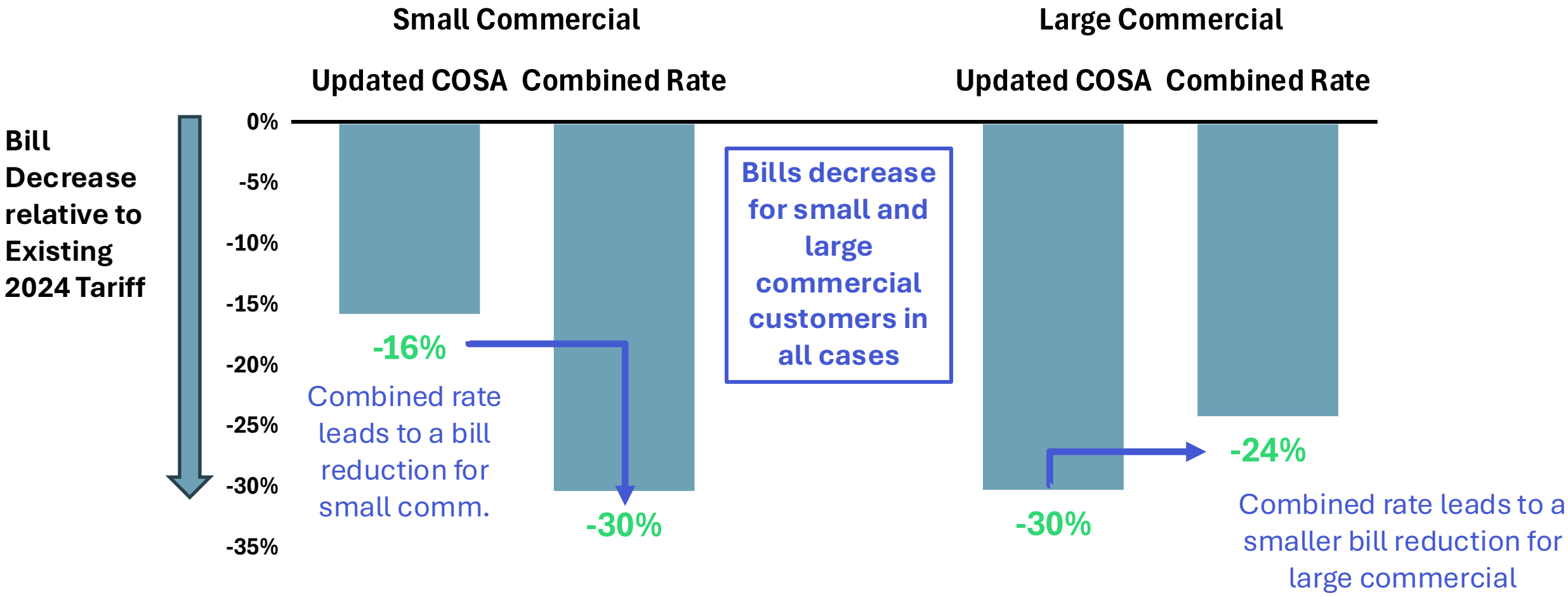
Comm Rate	Vintage	Customer ($ / mo.)	Demand ($ / kW)		Volumetric ($ / kWh)		
			Block 1	Block 2	Block 1	Block 2	Block 3
Small	2024 Tariff	$78.97	$7.51	NA	$0.1257	$0.1392	NA
Large	2024 Tariff	$78.97	$4.62	$6.93	$0.1140	$0.1265	$0.1685
Combined Classes	2024 COSA (Proportional)	$59.98	$3.50	$5.26	$0.0866	$0.0960	$0.1231
	2024 COSA (Cost-Based)	$107.66	$12.72	NA	$0.0349	NA	NA

* In this example, the 2024 COSA rates are calculated by scaling all components proportionally to the existing tariff structure

Commercial Bill Impacts Relative to Existing 2024 Tariff (Median Small and Large Customers)

Percentage Change in Total Bill relative to Existing 2024 Tariff

*Small and large customer with approximately median energy and demand usage, respectively **



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Small Commercial: 549 average monthly kWh; 2.52 average monthly max kW
Large Commercial: 4,327 average monthly kWh; 1.46 average monthly max kW

Rate Results – Pumps Class

Customer Charge
Demand Charge
Volumetric Charge

- Relative to 2024 tariff, updated COSA increases pump rate ~7%
- The customer charge can be split into clear bill categories and an electric charge adjuster can be implemented

Rate	Vintage	Fixed ($ / mo.)	Demand ($ / kW)		Volumetric ($ / kWh)		
			Block 1	Block 2	Block 1	Block 2	Block 3
Pumps	2024 Tariff	$50.82	$1.43	$4.67	$0.1354	$0.1085	$0.1318
	2024 COSA	$54.74	$1.54	$5.04	$0.1420	$0.1169	$0.1458

Key Takeaways and Next Steps

For all rates:

- Changes to revenue allocation can be phased in (e.g., over 3-6 years) for a smooth transition
- Fixed charge can be split into clear categories
- Electric charge adjuster can be implemented to cover unforeseen circumstances

Residential

- We recommend an increased fixed charge (with an increased EAP credit) to improve fairness and certainty of fixed cost recovery
- We also recommend developing a small demand charge in the near term
- Staff have proposed an interim large service charge

Commercial

- We do not have a recommendation regarding combining small and large commercial rates. We find:
  - The result would be a lower rate for small commercial and a higher rate for large commercial, relative to not combining the rates
  - Combined rate would simplify OPALCO's rate schedules
  - In either case (combining or not), small and large commercial rates will decrease relative to existing rates due to updated COSA

Pumps

- We explored a COSA update to rate without rate design changes

Next Steps

- OPALCO staff to review and align on proposed updates, potential E3 support in the fall

Appendix

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Rate Results - Commercial Class

Customer Charge
Demand Charge
Volumetric Charge

Rate	Vintage	Customer ($ / mo.)	Demand ($ / kW)		Volumetric ($ / kWh)		
			Block 1	Block 2	Block 1	Block 2	Block 3
Small Commercial	2024 Tariff	$78.97	$7.51	NA	$0.1257	$0.1392	NA
	2024 COSA (Proportional Scaling*)	$66.54	$6.34	NA	$0.1060	$0. 1173	NA
Large Commercial	2024 Tariff	$78.97	$4.62	$6.93	$0.1140	$0.1265	$0.1685
	2024 COSA (Proportional Scaling)	$55.12	$3.22	$4.83	$0.0796	$0.0882	$0.1131
Combined Commercial	2024 Tariff	NA	NA	NA	NA	NA	NA
	2024 COSA (Proportional Scaling)	$59.98	$3.50	$5.26	$0.0866	$0.0960	$0.1231
	2024 COSA (Cost-Based)	$107.66	$12.72	NA	$0.0349	NA	NA

* In this example, the 2024 COSA rates are calculated by scaling all components proportionally to the existing tariff structure