



Proposed Adjustments to SRP's Standard Electric Price Plans Effective with the May 2019 Billing Cycle

February 26, 2019



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Agenda

McSheffrey / Tucker

- Pricing Components / Rate Structure
- Monthly Service Charge
- Customer Generation Rate Design
- Export Rate
- Analysis of ASDA Proposal

John Coggins

- SRP Value of Solar Work

Susan Tierney Presentation

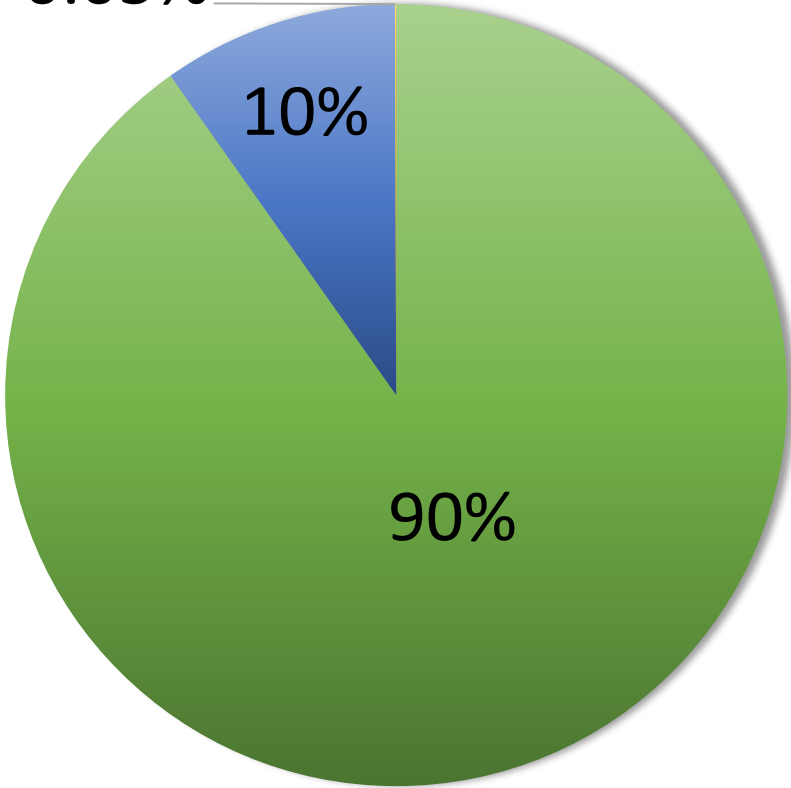
If time permits:

- NGS (John Coggins)
- Analysis of Sunrun's Presentation
- Analysis of Director Brown's Proposal
- E-67
- Brattle Recommendations
- Other Pricing Items
- Water Support (Michael O'Connor)

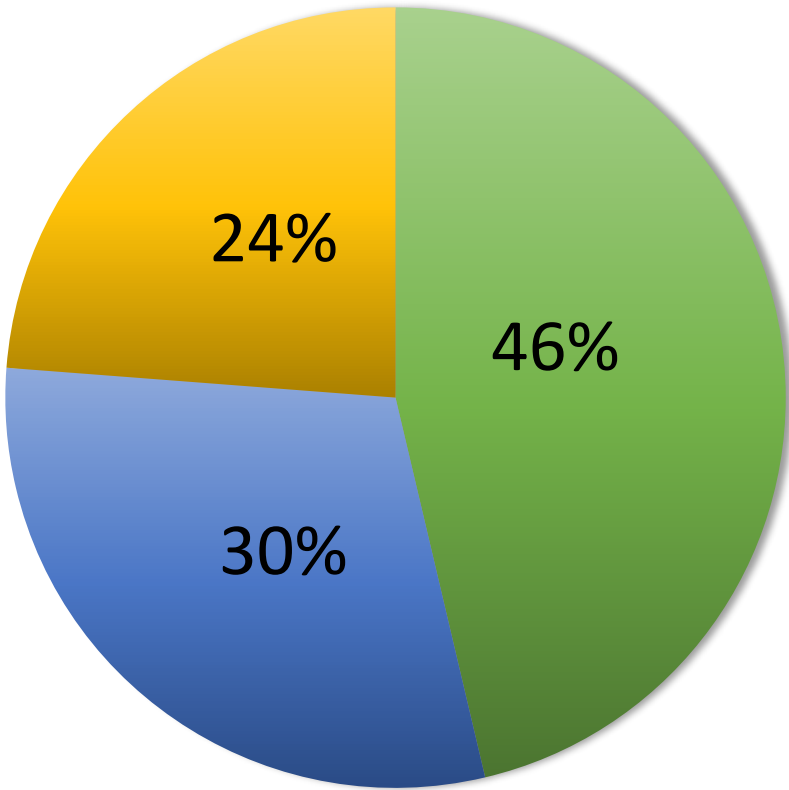
Pricing Components

Class Profiles

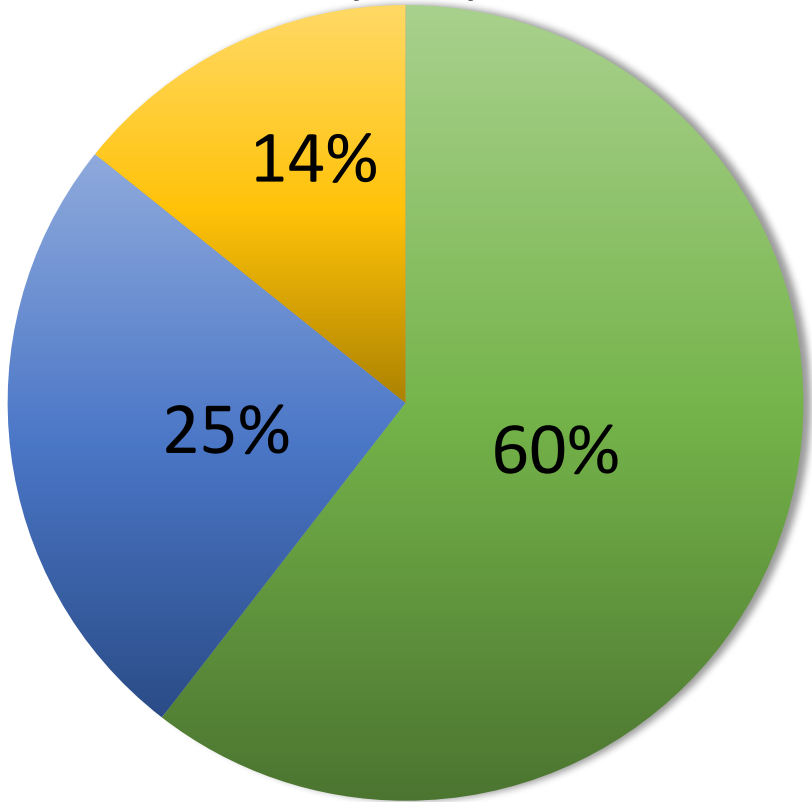
Number of Customers
0.05%



Energy Requirements
(kWH)



System Requirements
(kW)



■ Residential ■ General Service ■ Large General Service

Time-of-Use E-26: Marginal Cost of Each Billing Component



Source: Appendix B of the Cost Allocation Study

Billing and Customer Service Major Components

Department
Residential Contact Center
Customer Billing & Accounting
Emerging Customer Technology
Marketing Support
Metering Technology & Payment Services
Customer Credit Services
Distribution Energy Programs
Customer Interaction Solution Support
Blue Stake

Basic E-23 Current Return by Stratum

Stratum	Avg. Monthly Summer kWh	Revenue	Expense	Return
1	0-400	\$44	\$42	2.5%
2	401-850	\$70	\$65	2.9%
3	851-1,300	\$95	\$89	2.7%
4	1,301-1,800	\$125	\$118	2.1%
5	1,801-2,600	\$165	\$155	2.4%
6	2,600+	\$253	\$222	5.0%

Residential Monthly Service Charge Comparison

Residential Monthly Service Charges

Company	MSC	Demand	Decoupling	Extra \$ Solar
NV Energy	\$8.75-\$222.95		✓	
LIPA (PSEG Long Island)	\$12.17-\$55.36		✓	
OPPD	\$30.00			
Santee Cooper	\$19.50-\$28.00			✓
PNM	\$7.11-\$26.51			
NPPD	\$22.50		✓	
SMUD	\$20.30			
SRP	\$20.00			\$12.44-\$25.44
LADWP	\$1.75-\$18.50	Some Rates	✓	
SCE	\$0.91-\$16.73		✓	
Colorado Springs Utilities	\$15.52-\$15.80			
APS – R-Basic (Small Res., no DG)	\$15.00		✓	
APS – TOU-E	\$13.00		✓	✓
APS – R-2/R-3	\$13.00	✓	✓	
TEP	\$10.00-\$13.00	Some Rates	✓	✓
CPS Energy	\$8.75-\$10.50			
SDG&E	\$0.00		✓	

Residential Monthly Service Charges – Public Power

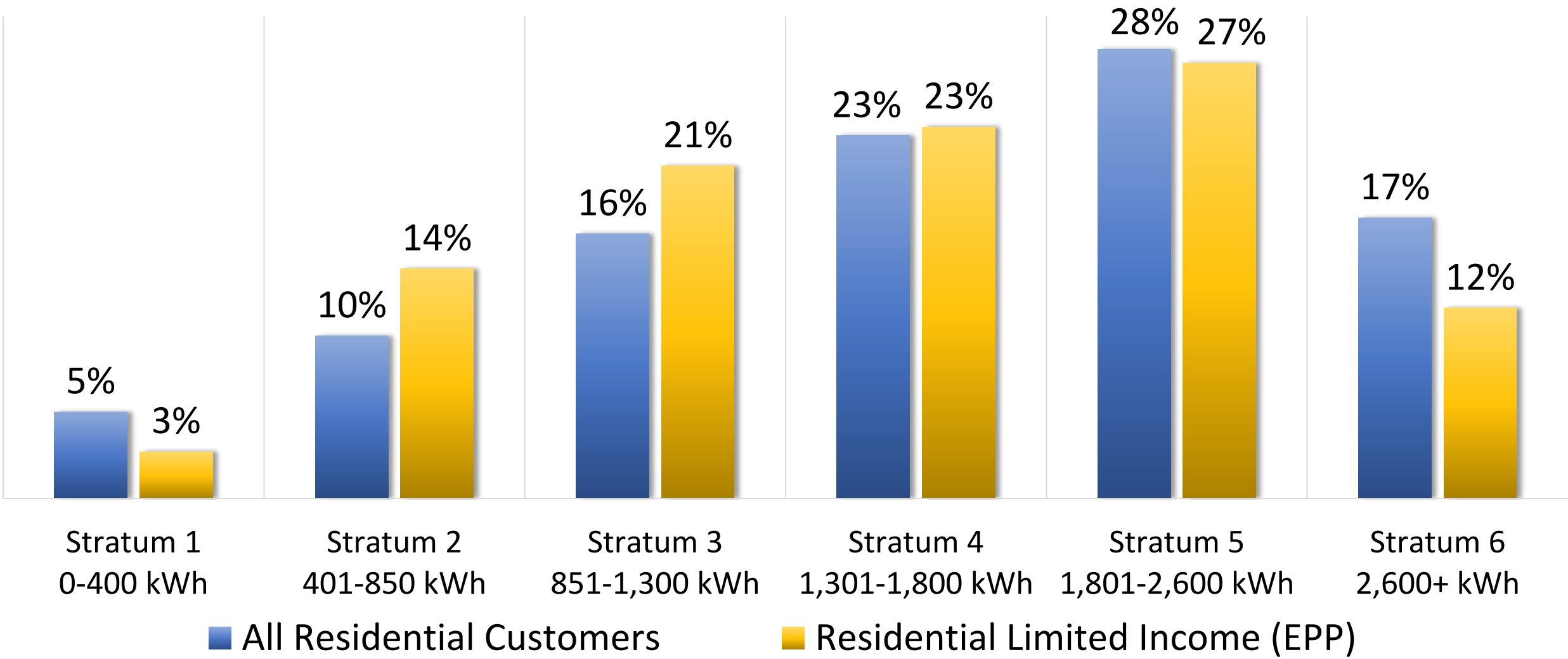
Company	MSC	Demand	Decoupling	Extra \$ Solar
LIPA (PSEG Long Island)	\$12.17-\$55.36		✓	
OPPD	\$30.00			
Santee Cooper	\$19.50-\$28.00			✓
NPPD	\$22.50		✓	
SMUD	\$20.30			
SRP	\$20.00			\$12.44-\$25.44
LADWP	\$1.75-\$18.50	Some Rates	✓	
Colorado Springs Utilities	\$15.52-\$15.80			
CPS Energy	\$8.75-\$10.50			

Changes to Monthly Service Charge

E-23 Customers with \$13 Monthly Service Charge (MSC)

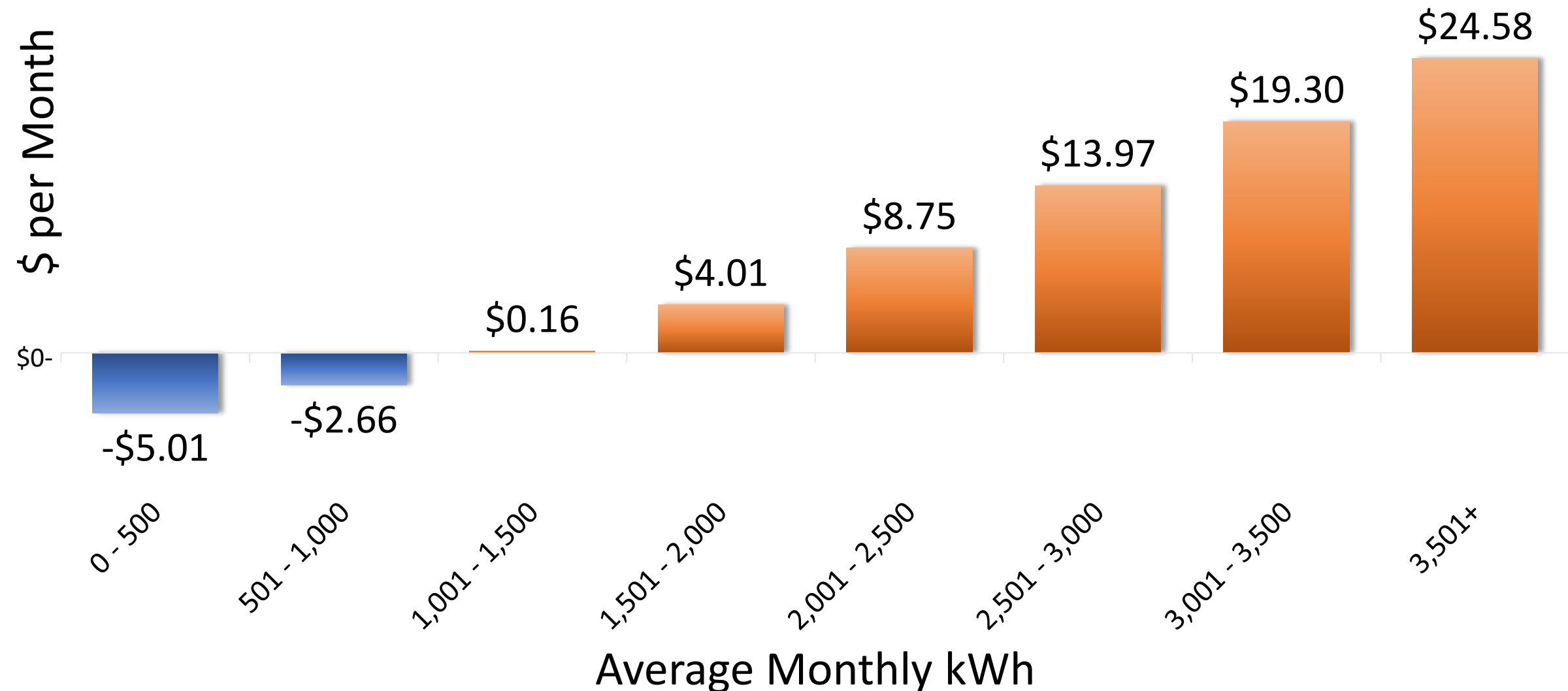
- If we decrease the MSC to \$13 from the current \$20 then we must increase kWh prices to raise the same amount of revenue
- This means that revenues are shifted from lower use customers to higher use customers
- Limited Income customers on the Economy Price Plan (EPP) include both high and low use customers

Residential and Limited Income Customers by Stratum



Note: Strata are defined by the customer’s average monthly summer gross kWh for June through September 2018

E-23 Customer's Bill Impact with a \$13 MSC

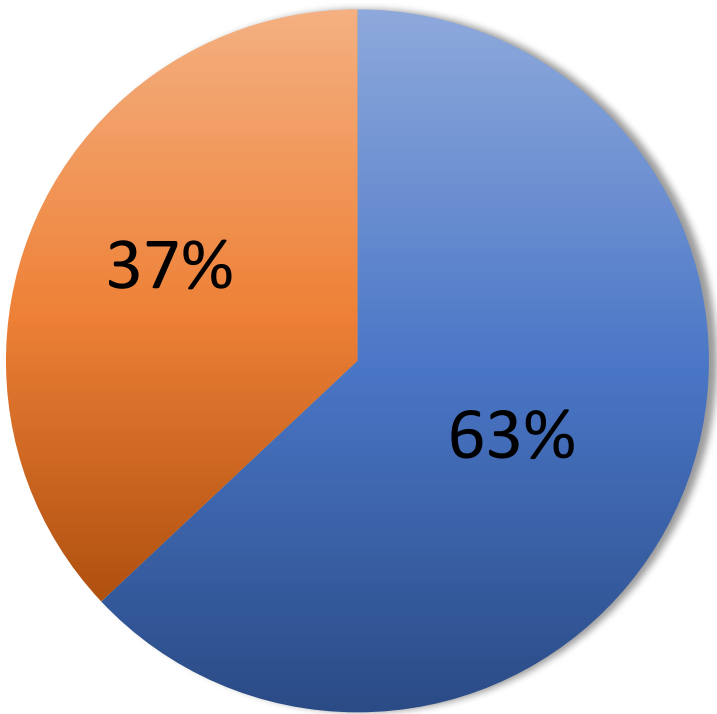
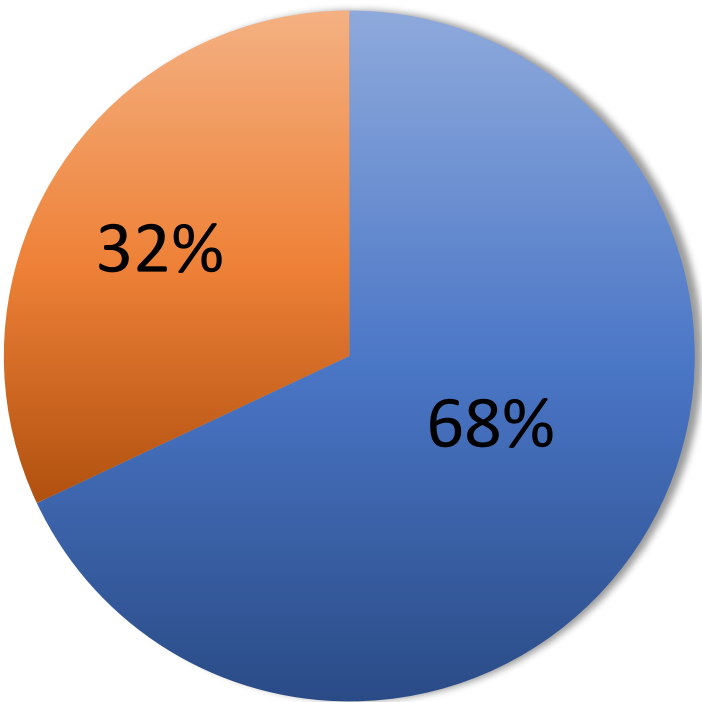
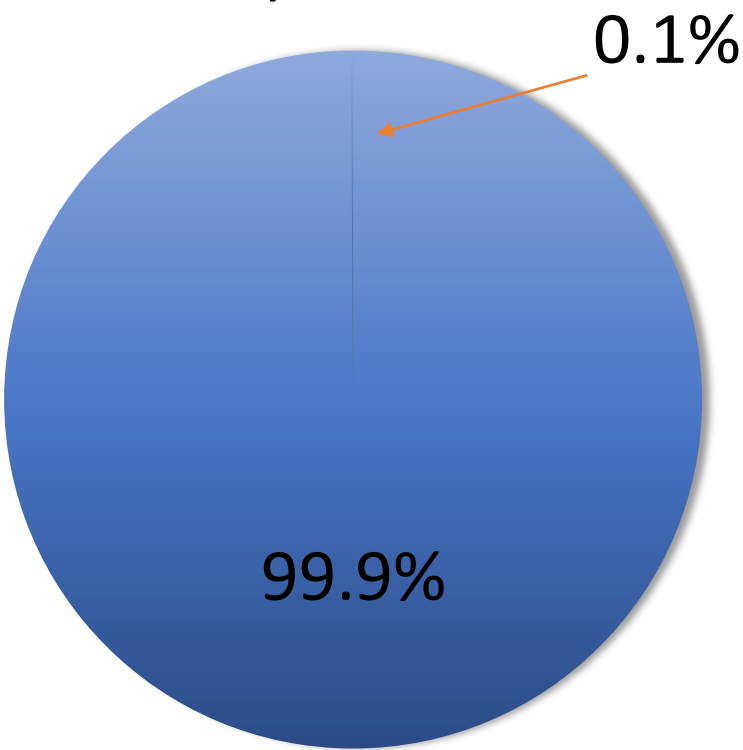


Basic E-23 Impacts: \$20 MSC vs. \$13 MSC

\$3.18 Monthly Avg.
Increase to EPP Customers
\$13 MSC

\$4.66 Monthly Avg.
Increase to Non-EPP
Customers
\$13 MSC

Proposed
\$20 MSC



■ Decrease ■ Increase

Management does not recommend reducing the current Monthly Service Charge and collecting related fixed costs through volumetric charges

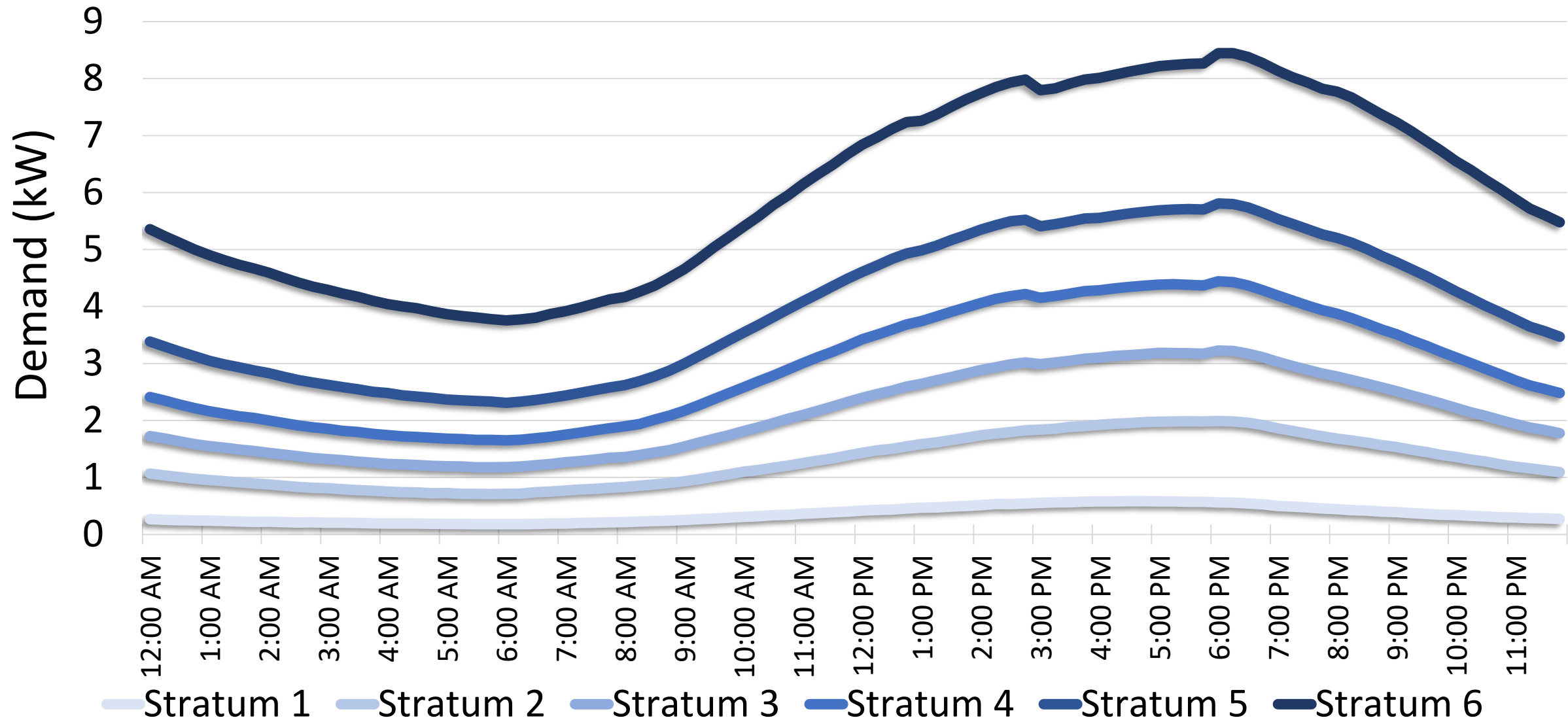
E-27 Customer Generation Rate Design

Time-of-Use E-26: Marginal Cost of Each Billing Component

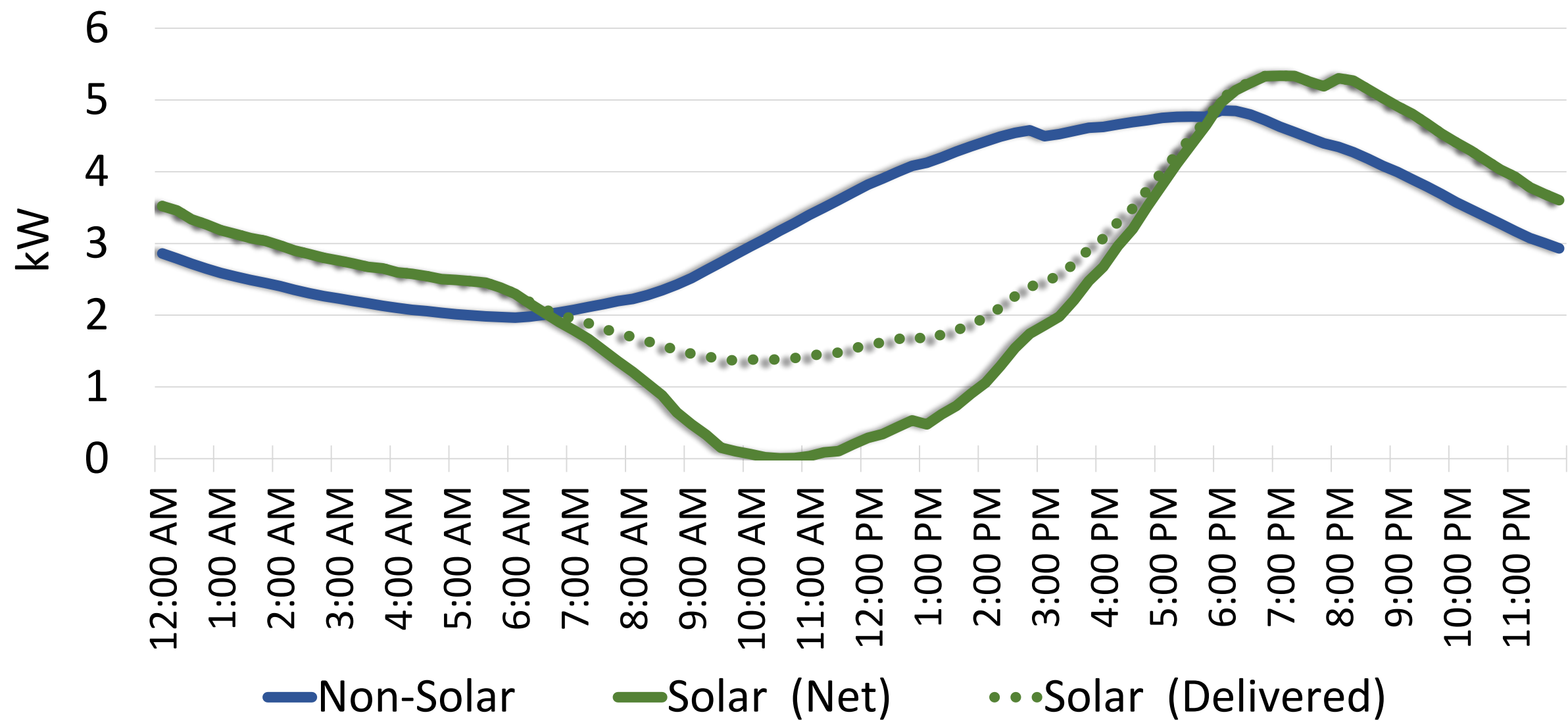


*Hourly kW across all costing periods; **30-minute on-peak kW

Residential Load Shapes Peak Day 2018



Peak Day: July 25th, 2018



Monthly Averages

Average Month		
Non-Solar		
		kWh
		On-Peak kW
	Stratum 1	260
	Stratum 2	499
	Stratum 3	739
	Stratum 4	1,010
	Stratum 5	1,399
	Stratum 6	2,224
	Average Solar Customer (GF)	583
		7.1

Export Rates

Company Comparison: Solar

Company	Credit Rate (¢/kWh)*	Sell Back Rate (¢/kWh)**	Net Metering
SRP E-13	2.81	2.81	
APS	11.61	11.61	
TEP	9.64	9.64	
SMUD	Retail	5.59	✓
LADWP	Retail		✓
Colorado Springs	1:1 kWh	~2.14	✓
OPPD	3.52 (W), 4.00 (S)	3.52 (W), 4.00 (S)	✓
NPPD	5.04 (W), 8.80 (S)	5.04 (W), 8.80 (S)	✓
CPS Energy	1.65		✓
Santee Cooper	3.84 (W), 4.16 (S)	3.84 (W), 4.16 (S)	
LIPA (PSEG Long Island)	1:1 kWh		✓
SCE	Retail	2.71-3.73	✓
SDG&E	Retail	2.98-4.16	✓
PNM	1:1 kWh	1.65-4.98	✓
NV Energy	5.63-8.87	0.00	✓

*For utilities offering net metering, **Credit Rate** is the credit applied to the next month's bill if the customer was a net energy producer for the current billing cycle.

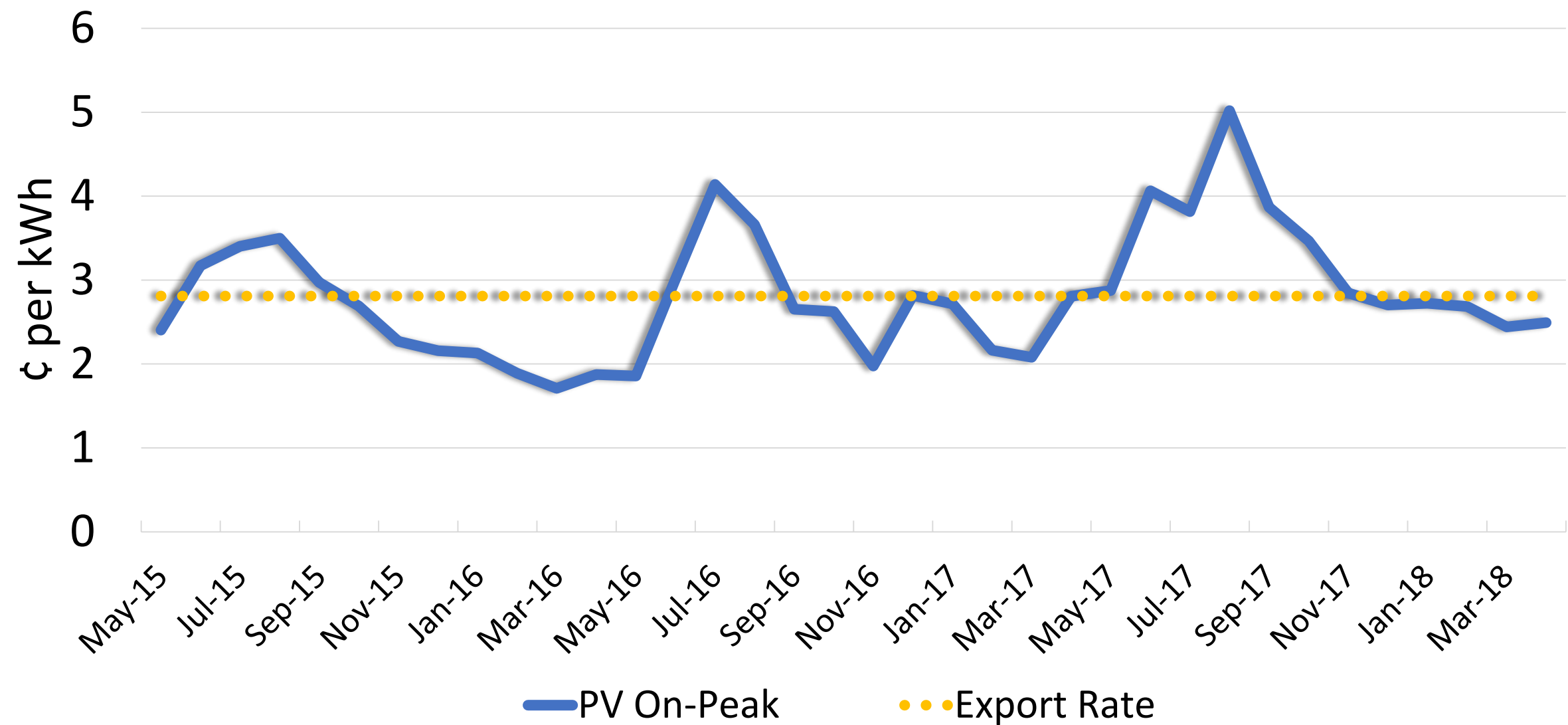
*For utilities not offering net metering, **Credit Rate** is the credit applied to the current billing cycle when the customer is at any time an instantaneous net producer. Excess credit balance carries forward to next month.

****Sell Back Rate** is the cash payment offered to customers for solar production at the end of a reconciliation period (normally annually).

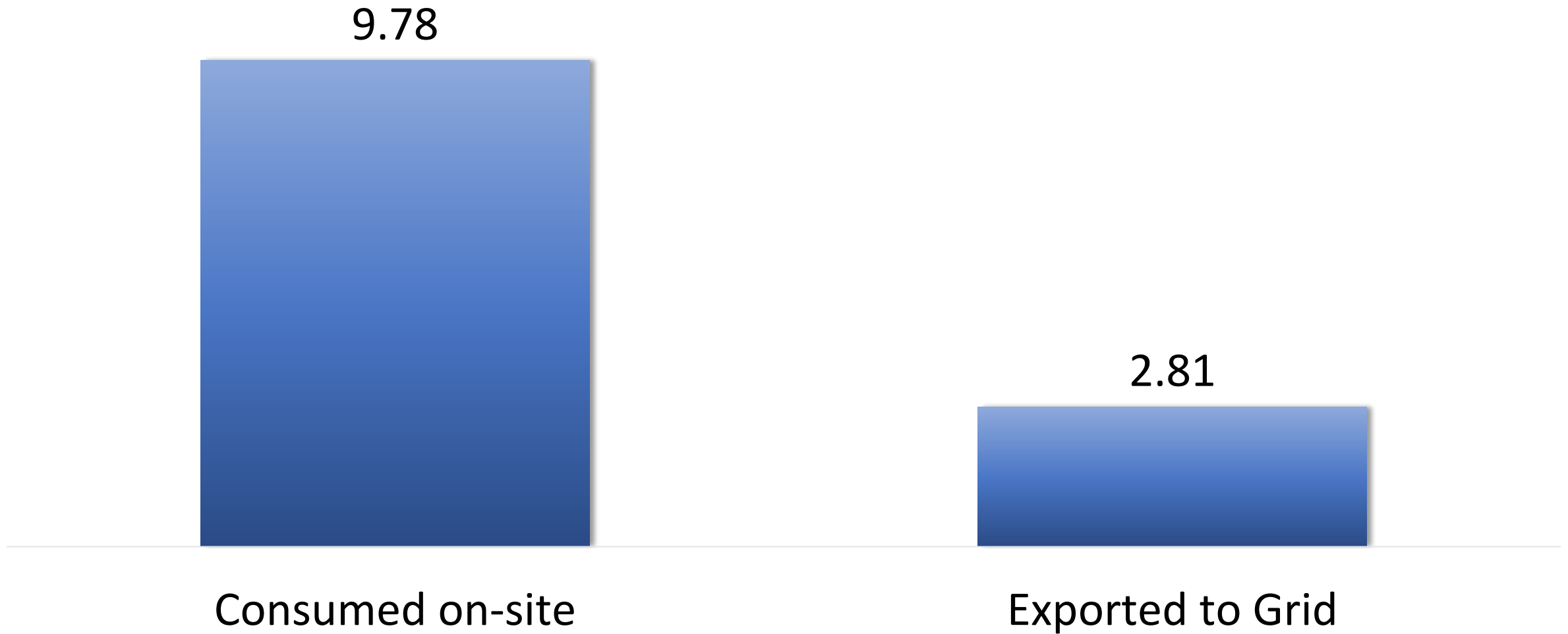
Proposed Export Rate

- Based on higher of two recent utility scale solar PPAs
 - Obtained through competitive RFP
 - Terms subject to NDA
- Adjusted upwards by loss factor of 5.95% to reflect reduction in losses on the Transmission and Distribution systems
- Export Rate = PPA Price x 1.0595

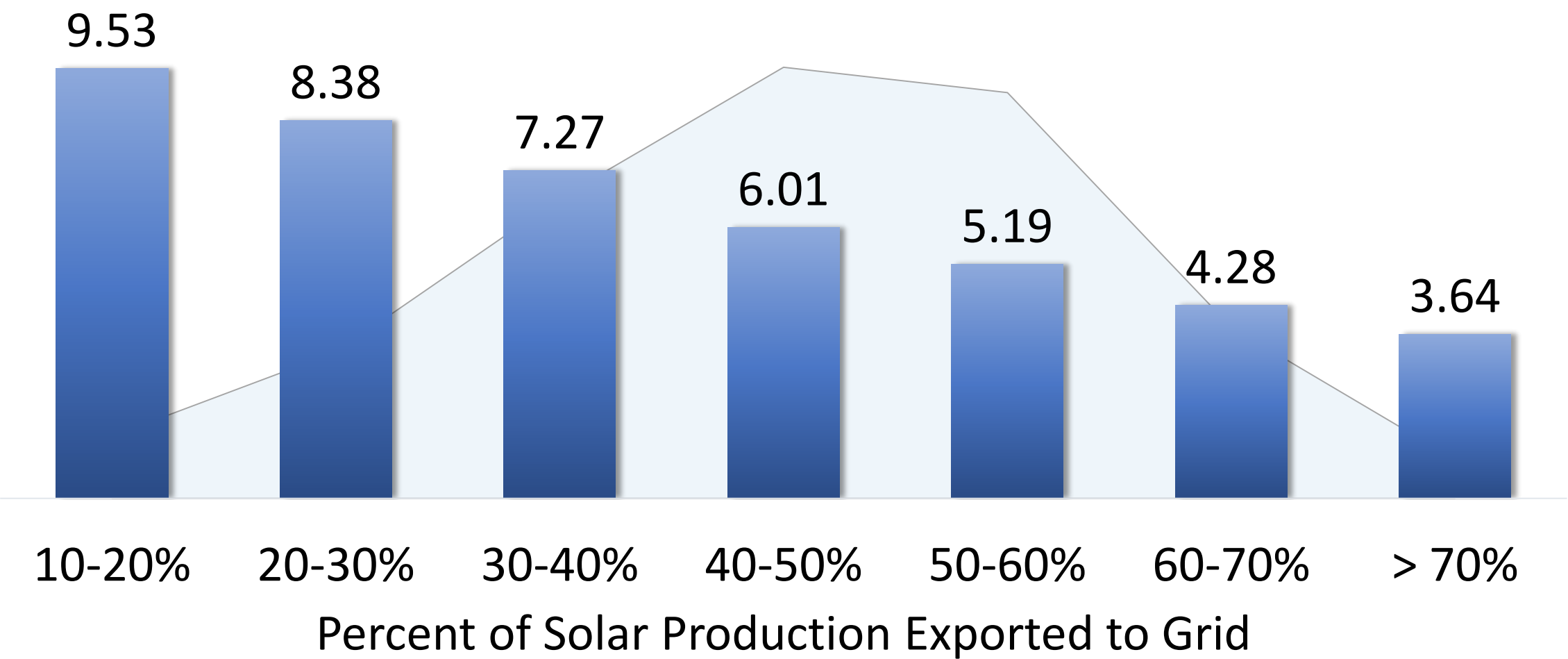
Palo Verde Historical Prices May 2015 – April 2018



Average Savings per kWh of Solar Production (¢ per kWh)



Savings vs Basic E-23 per kWh of Solar Production (¢ per kWh)

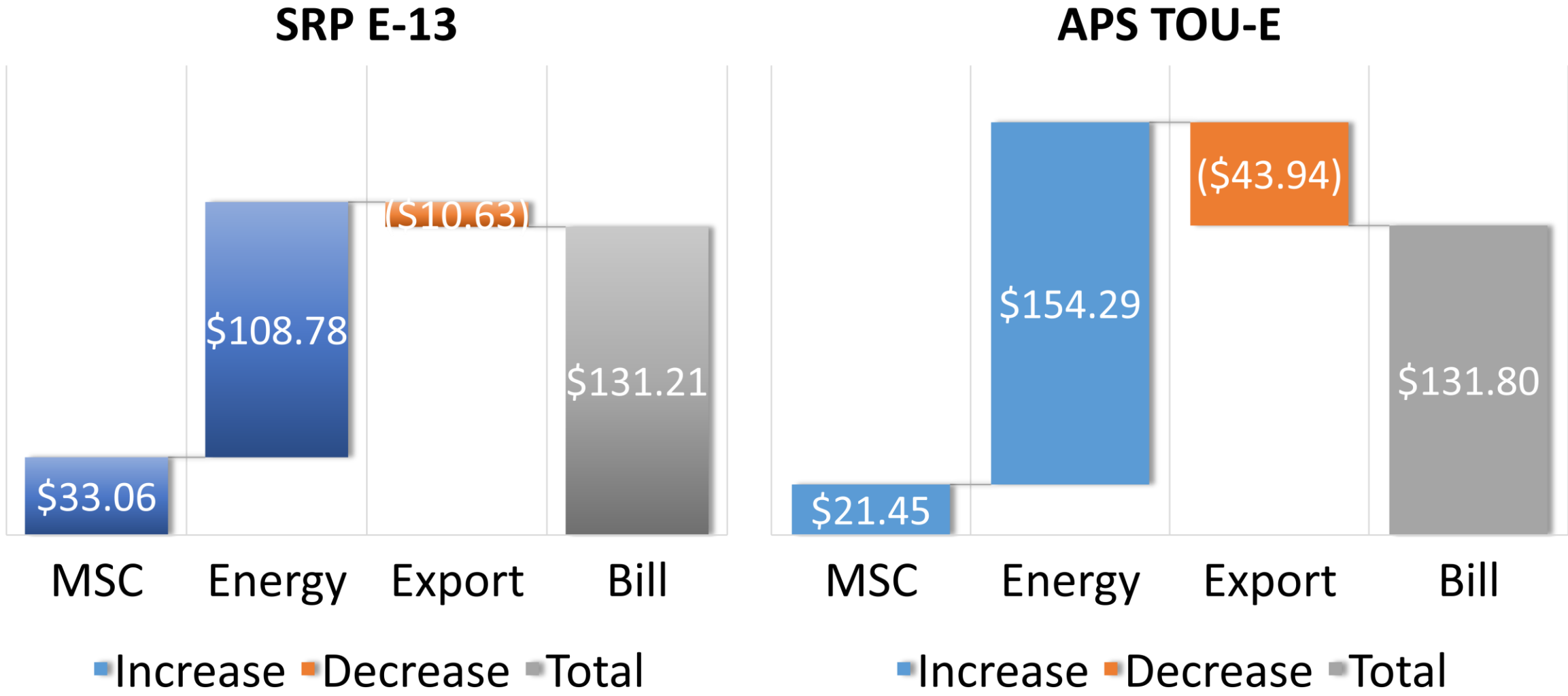


Proposed Revenues for Customer Generation Price Plans (\$000)

	E-27 Demand	E-15 Average Demand	E-13 TOU Export
MSC	\$2,265	\$2,265	\$2,265
kW	\$3,698	\$3,697	N/A
kWh	\$1,616	\$1,616	\$6,078
Export	N/A	N/A	(\$772)
Total Revenue*	\$7,578	\$7,577	\$7,570

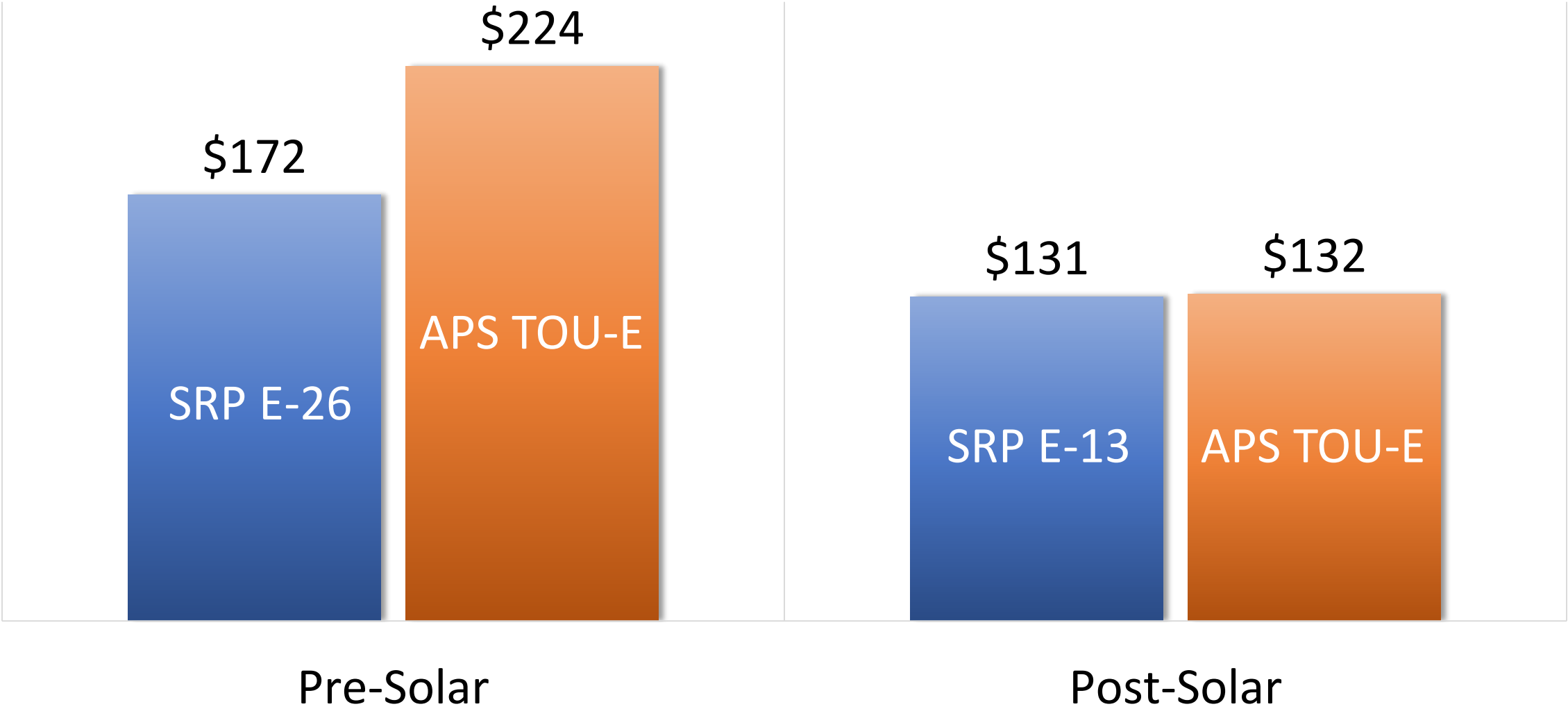
*Totals may not sum due to rounding

APS Post-Solar Bill Comparison by Category



*APS bills include approved adjustors that are currently approved.

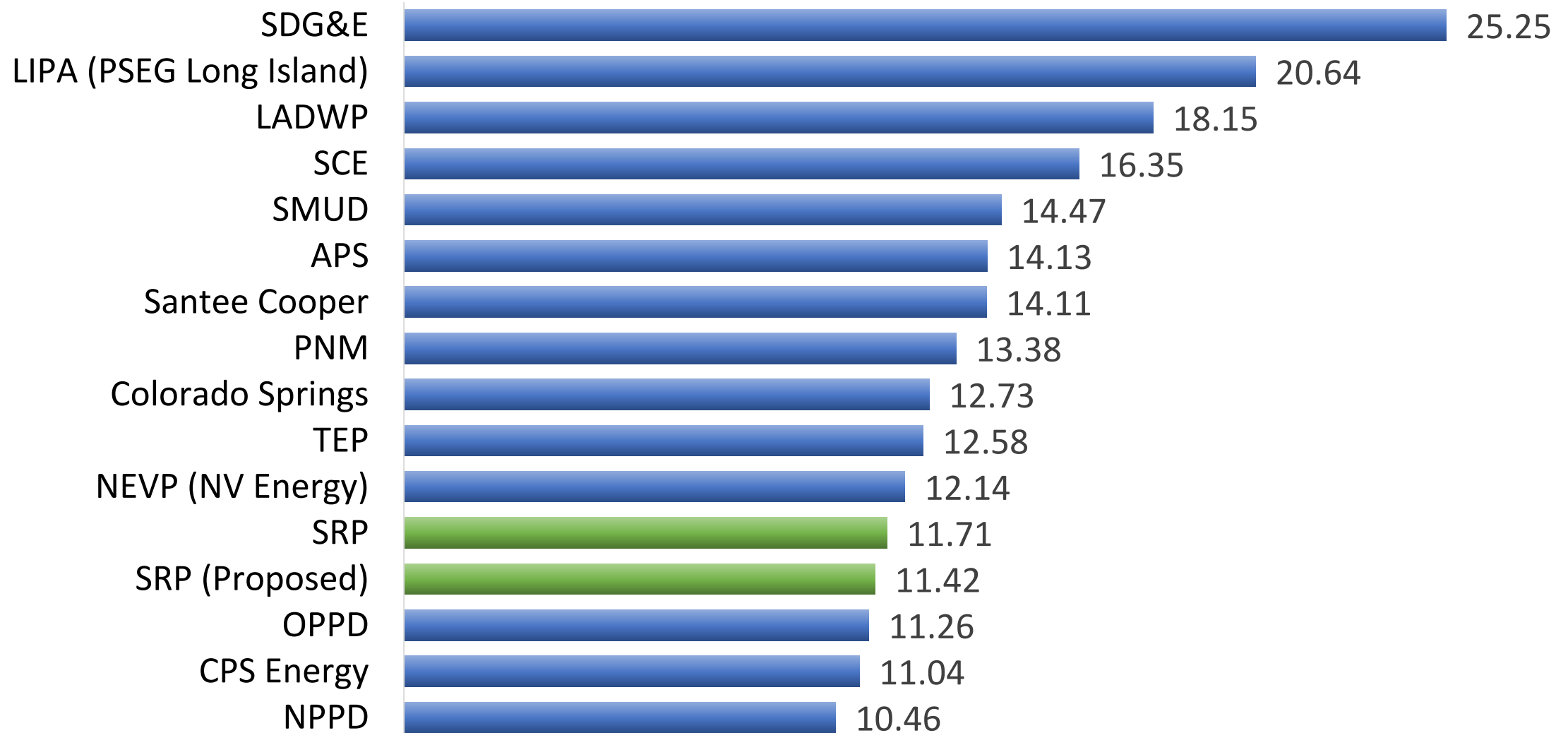
Monthly Bill Comparison, Time-of-Use Rates



*APS bills include approved adjustors that are currently approved.

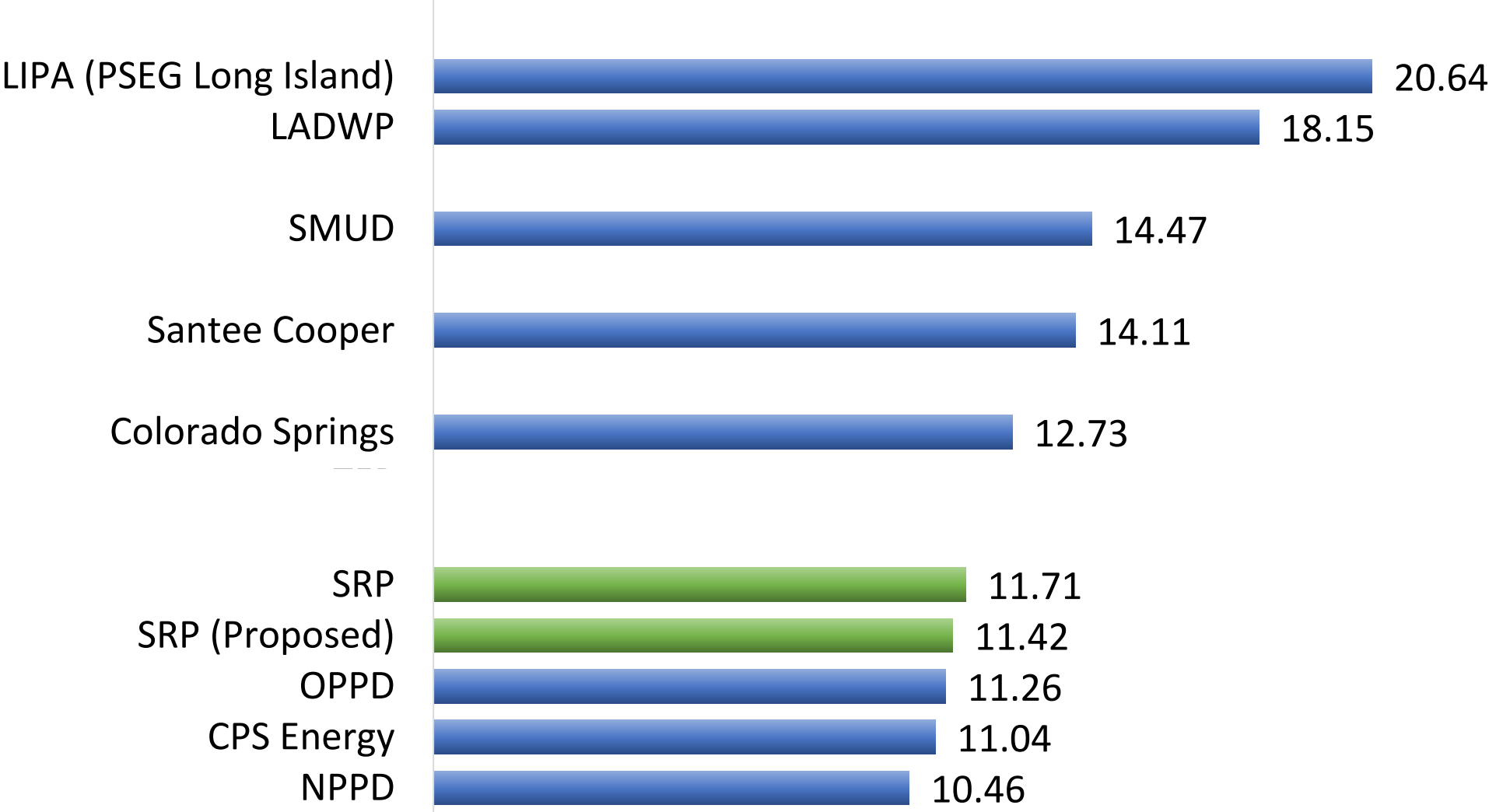
Overall Price Comparisons

Price Comparison: Residential Price (¢ per kWh)



Source: Dept. of Energy EIA-826 Reports for 12 months ending November 30, 2018

Price Comparison: Residential Price (¢ per kWh) – Public Power



Source: Dept. of Energy EIA-826 Reports for 12 months ending November 30, 2018

Response to Arizona Solar Deployment Alliance (ASDA)

Arizona Solar Deployment Alliance (ASDA) Formal Recommendation

ASDA consists of 3 local companies: Arizona Solar Concepts, Harmon Solar and Electric, and Sun Valley Solar Solutions

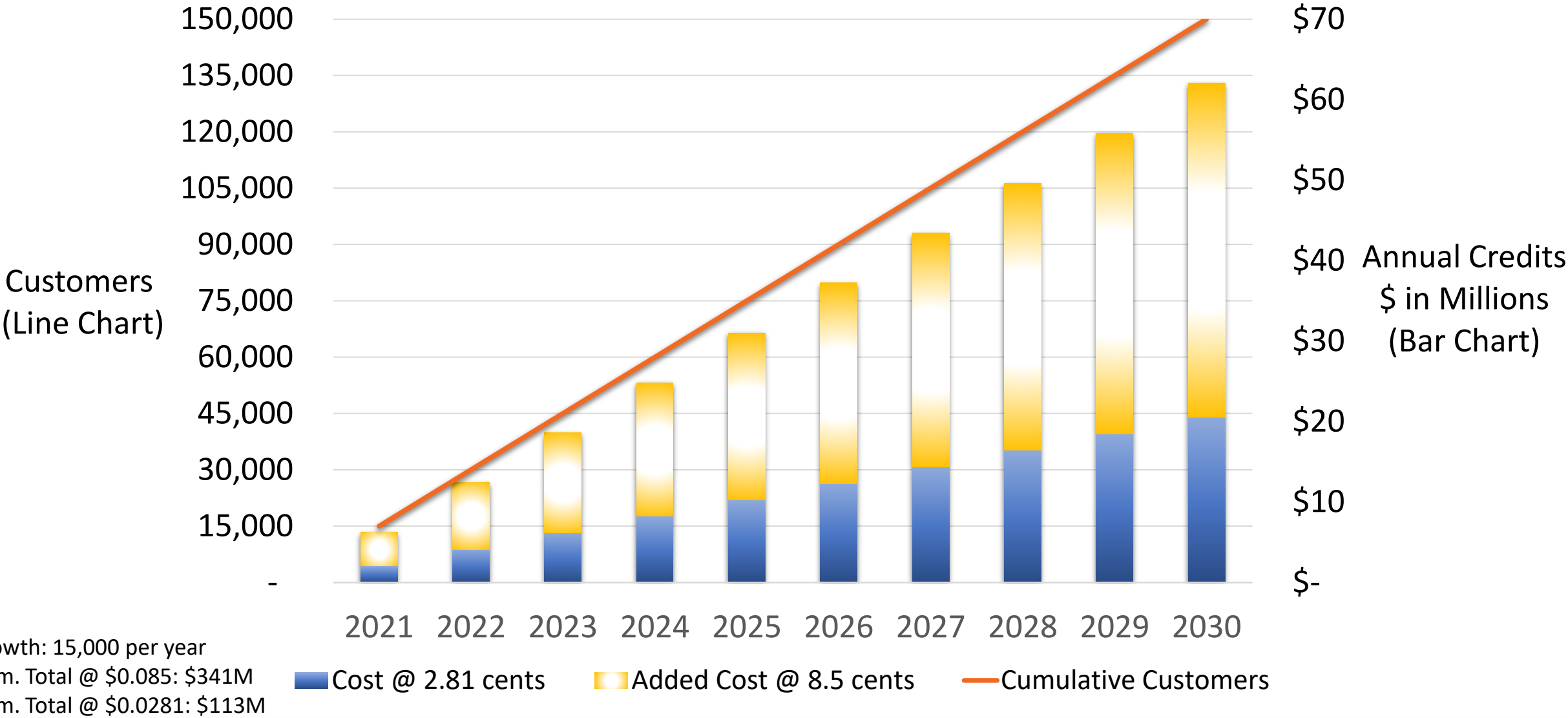
- 1) Export credit should be 8.5 cents vs. 2.81 cents
- 2) No Sell Rate Rider
 - Allows any customer an option to produce, store, and consume electricity on site that never pushes electricity back to the utility
 - Applicable to any rate
- 3) Monthly Service Charge should be \$20.00 for solar and non-solar customers

ASDA Proposal, Monthly Revenue per Customer

	E-13 (Proposed)	E-13 with 8.5 cent Export Rate	E-13 with 8.5 cent Export Rate + \$20 MSC	Grandfathered E-26
Revenue per Customer	\$131.21	\$109.67	\$96.61	\$99.84
Revenue Change		-16.4%	-26.4%	-23.9%
Return*	-1.8%	-9.0%	-13.1%	-13.9%

* Revenues calculated with E-27 customers. Return calculated using test year determinants and overall revenues.

Long-term Impact of Higher Export Credit



Value of Solar

Sue Tierney

NGS Decommissioning

Proposed Transition Funding Plan

Tó Nizhóní Ání, Diné CARE and Black Mesa Water Coalition

- Key requests include:
 - \$38.5 million transition fund over 10 years
 - Tribal renewable energy commitments
 - In-kind services
 - Navajo hiring preferences
- Comparisons provided for other plant retirements

NGS Owners Transition Plan

Component	Value / (Cost to Owners)
Annual lease payments	\$110M total over 35 years
Job assurance for all plant employees	(\$20M increased labor cost)
Coal royalty assurance	\$39M total; est. \$7M for no coal deliveries
Assets retained by Nation	\$175M
Shared decommissioning savings	\$19M
2.5 year decommissioning delay	(\$130M estimated cost)
500 MW transmission access and O&M	Access \$7.4M/yr; (O&M \$5M total over 10 yrs)
Solid waste mngt program contribution	\$3.6M
Renewable Projects	Above mkt. price, MOU for future projects
In-kind services	Economic development, Water, Infrastructure
Navajo hiring preference; job training	Local jobs