

Exhibit to Agenda Item #4

Provide the Board a briefing on Time-of-Day (TOD) Rate assumptions, results, and environmental benefits during the first summer in 2019.

Special Board of Directors Meeting

Tuesday, June 9, 2020, scheduled to begin at 5:30 p.m.

Overview

- Why TOD
- Assumptions, results and environmental benefits
- Average bill savings from first summer in 2019
- During COVID Shelter-in-Place Bill Savings
- TOD vs. Fixed Rate comparison
 - Customers have choice – TOD rate or Fixed rate
- Keeping our customers informed and resources to help manage energy use

Why TOD?

Supports carbon reduction goals set by the Board

- Aligns with SMUD's commitment to renewable energy and the environment
- Supports Integrated Resource Plan (IRP)
 - Promotes electrification with lower off-peak prices
 - Lower energy prices when clean power is abundant and higher prices when more carbon intensive

Supports Board Direction (sd-2) on rates

- Reflect the cost of energy when it is used
- Reduce use on peak
- Encourage energy efficiency and conservation
- Offer flexibility and options
- Be simple and it easy to understand
- Equitably allocate costs across and within customer classes.

Quick TOD facts

82% of the hours in a year are Off-peak pricing

Weekends and holidays are always Off-peak pricing

Summer Peak hours only make up 3% of the total hours in a year

EV customers save an additional 1.5 cent/kWh from 12 a.m. to 6 a.m.

Customers will see lower bills 8 months of the year and higher bills 4 months of the year – TOD is not a rate increase

2020 Residential Time-of-Day (5-8 p.m. Peak) Rate

Non-summer months

| Time periods (Oct. 1 - May 31) | Price per kWh Prices reflect Oct. 2020 rate increase. | Percentage of the total year |
|---|--|------------------------------|
| Off-Peak (All hours except 5 p.m. - 8 p.m., Mon - Fri) | \$0.1035 | 61% |
| Peak (5 p.m. - 8 p.m., Mon - Fri) | \$0.1430 | 6% |
| Total hours per year | | 67% |

Summer

| Time periods (June 1 - Sept. 30) | Price per kWh | Percentage of the total year |
|--|---------------|------------------------------|
| Off-Peak (midnight - noon) | \$0.1209 | 21% |
| Peak (5 p.m. - 8 p.m., Mon - Fri) | \$0.2941 | 3% |
| Mid-Peak (noon - midnight, except 5 p.m. - 8 p.m., Mon - Fri) | \$0.1671 | 9% |
| Total hours per year | | 33% |

Total Non-summer months + Summer months = 100%

Did TOD do what we expected it to do?

Yes! SMUD customers benefited through:

- Environmental benefits (lowered carbon emissions)
- Customers able to shift energy use and also reduce overall energy use
 - Better results than anticipated
- SMUD supports our Customers, helping them manage their energy usage with education
- SMUD realizes commodity cost savings
- Customers have the option for a Fixed Rate alternative
- As we entered COVID-19, TOD customers experienced lower electric rates
 - Customers who remain at home may have increased ability to take advantage of low-price time periods
 - Opportunity to create more environmental benefits this summer

Environmental Benefits

TOD reduced the carbon impact by approximately **12,800 tonnes** per year, which is equal to 1 of the following

4,800



Electrifying
houses for
1 year

or

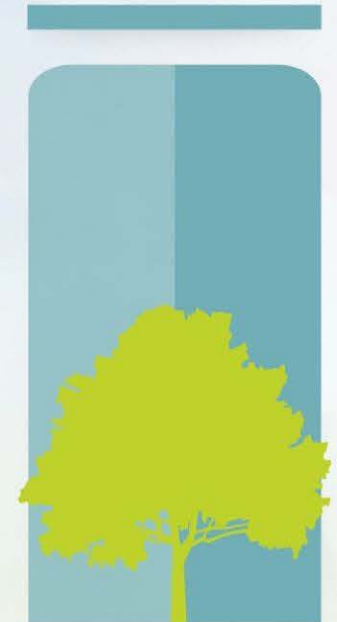
4,200



Removing **cars**
from road for
1 year

or

4,900



Planting 4,900
oak trees that
each grow for
40 years

TOD Results Exceeded Expectations

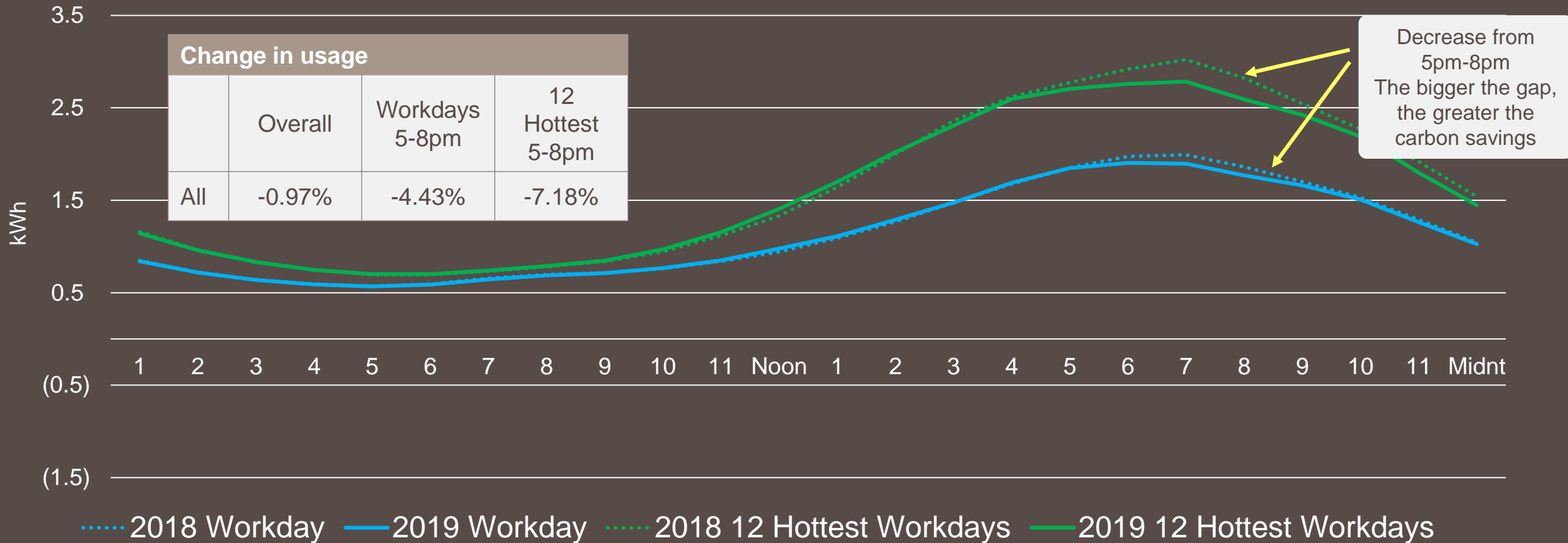
| Benefits | Estimated | Actual |
|---------------------------------|--------------------|---|
| Carbon Reduction | 3,000-5,000 tonnes | ✓ Estimated carbon reduction of 12,800 tonnes |
| Residential peak load reduction | 75MW, or 5.8% | ✓ ~130MW, or ~8% |
| Financial benefit | \$3.7M annually | ✓ \$5M est. in commodity costs |
| Selection of TOD | 96% | ✓ So far, 98% of customers have selected TOD |

Adopted budget included the assumed cost savings, reducing rate increases

* SmartPricing Options pilot conducted in 2012-13

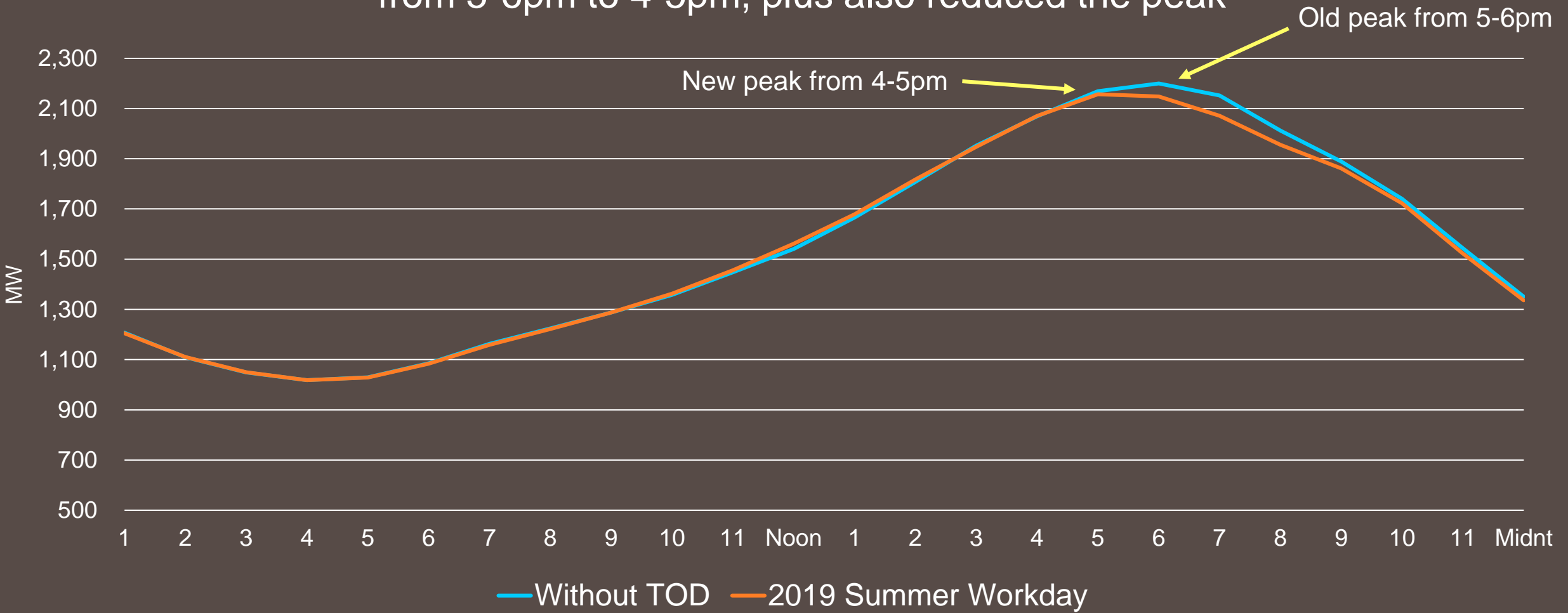
Average Customer Energy Use Reduction

With TOD, the greatest carbon reduction was achieved on the 12 hottest days in the summer (green line)



System Impact to Average Summer Workday

With TOD, Customers moved the system peak from 5-6pm to 4-5pm, plus also reduced the peak



Energy Use Reduction, Plus Shifting Energy Use Within TOD Periods

Customers have not only shifted their energy use out of the Peak time period, but have also reduced their usage in all time periods.

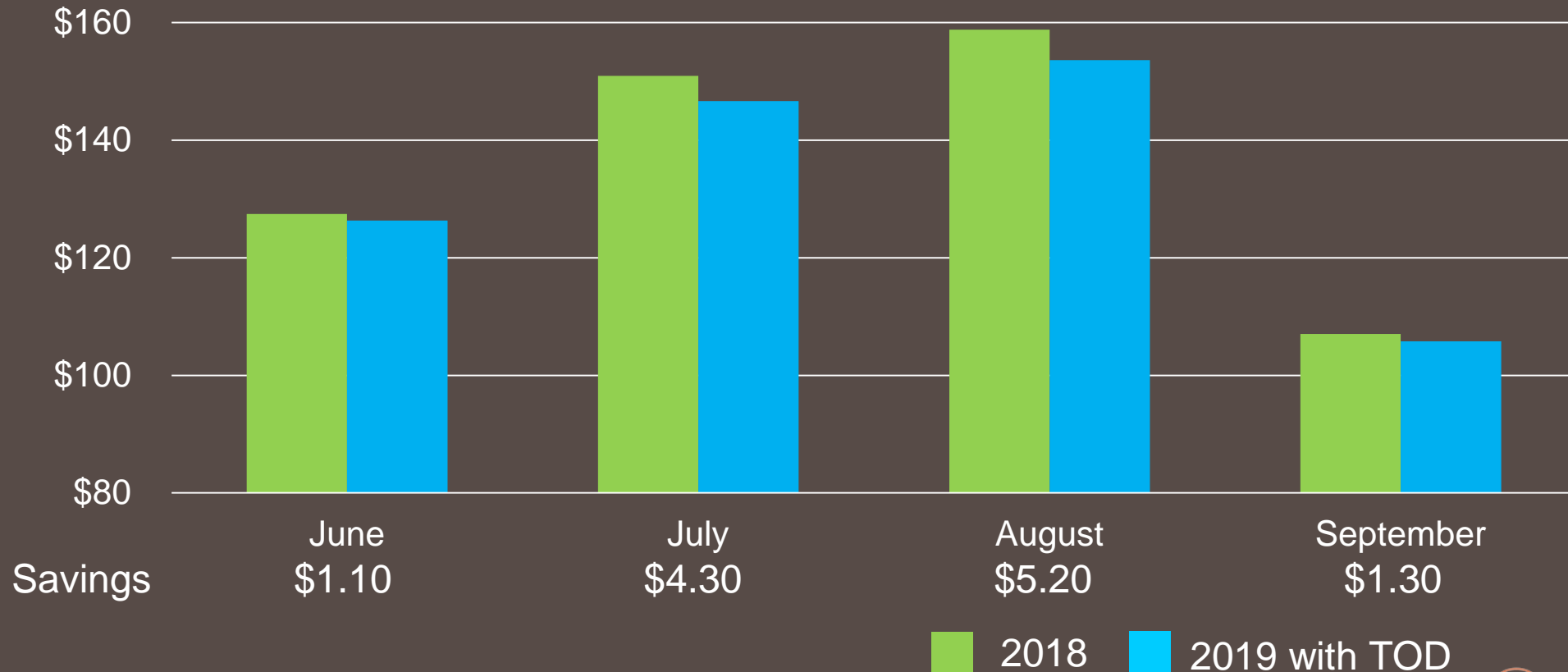
- This benefited the environment with lower carbon emissions
- Customers had bill savings

| TOD Time Period | Assumed Based on Pilot | 2019 Energy Savings |
|---------------------|------------------------|---------------------|
| Summer Peak | -4.0% | -6.0% |
| Summer Mid-Peak | -0.6% | -1.3% |
| Summer Off-Peak | 0.6% | -0.3% |
| Total Summer | -0.4% | -1.5% |

Customers saved & reduced usage in all time periods

Average Bill Savings from 1st Summer

Customers shifted and reduced their usage in all time periods and saved about 2% or \$3 per month on their summer electric bill



COVID-19 Impacts: Greater Savings for Customers

March – May 2020 TOD bill savings compared to 2018 Rate Structure (before TOD)

- Customers experienced lower bills with TOD rates

| Size | Type | kWh | Avg. TOD Bill (\$) | TOD Savings vs. 2018 Rate Structure (\$) |
|---------------------|----------|-----|--------------------|--|
| Large Energy Users | Non-EAPR | 711 | 95.6 | (10.00) |
| | EAPR | 656 | 58.0 | (9.10) |
| Medium Energy Users | Non-EAPR | 470 | 70.4 | (6.50) |
| | EAPR | 438 | 35.4 | (6.10) |
| Small Energy Users | Non-EAPR | 297 | 52.3 | (4.10) |
| | EAPR | 281 | 20.7 | (3.90) |

Average monthly savings ranges \$3.90-\$10.00

TOD vs. Fixed Rate Comparison

- **96% of customers are better off on TOD vs. Fixed Rate**
 - TOD summer bills are lower than Fixed Rate summer bills
 - Customers on the Fixed Rate pay 4% more on average
- **Fixed Rate Assumptions**
 - Designed for the top 4% high summer usage customers
 - Ensures cost recovery for the added costs for serving these customers
 - Current Fixed Rate population represents ~11,000 or 2% of customers
- **Customers have choice**

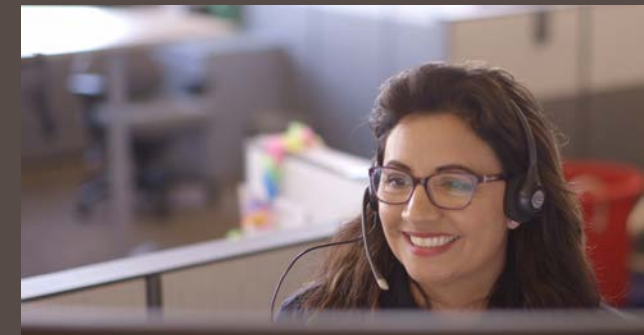
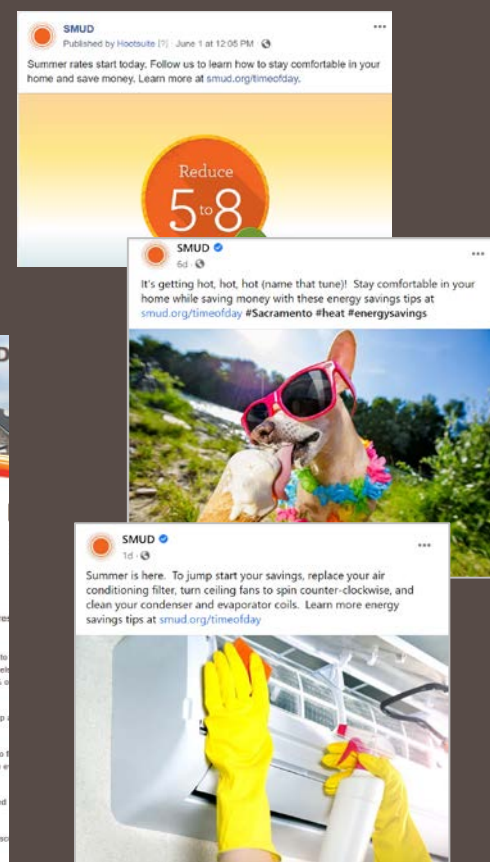
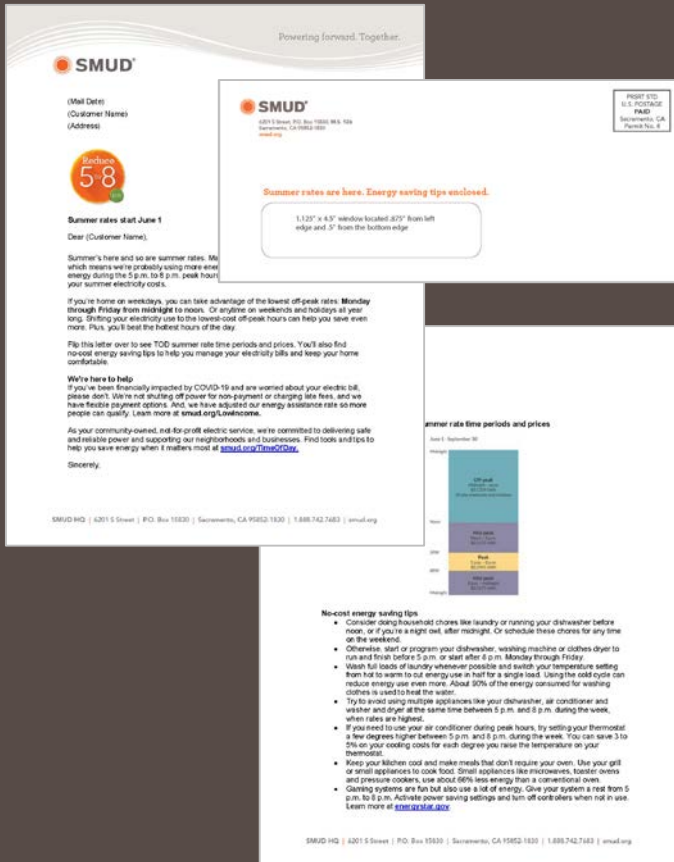
Keeping our customers informed

Letters mailed to all customers

Newsletter articles in bill package and email

Social media posts

CSRs provide personalized advice



Dear
Thank you for contacting us about your rate options. This rate comparison shows what your annual costs could look like on each rate option based on current prices.
This estimate uses 9 to 12 months of your historical usage data, assumes that your usage remains the same, and includes applicable rate charges, taxes, fees, discounts and the System Infrastructure Fixed Charge (SIFC).

Please keep in mind that this is an estimate and may not match your actual bill.

Rate comparisons

| Rate Scenario | Current Rate | Fixed Rate |
|-------------------------------------|--------------|------------|
| Total cost | \$1,088.77 | \$1,124.39 |
| Annual difference from current rate | \$0 | ↑ \$35.62 |

If you have any additional questions, please call us at 1-888-742-7683 or email customerservices@smud.org.

Thank you for being a valued SMUD customer.

Sincerely,
SMUD Customer Services

Customers have choice



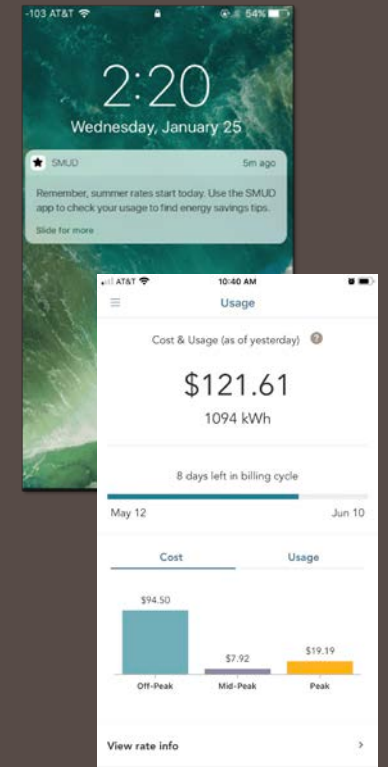
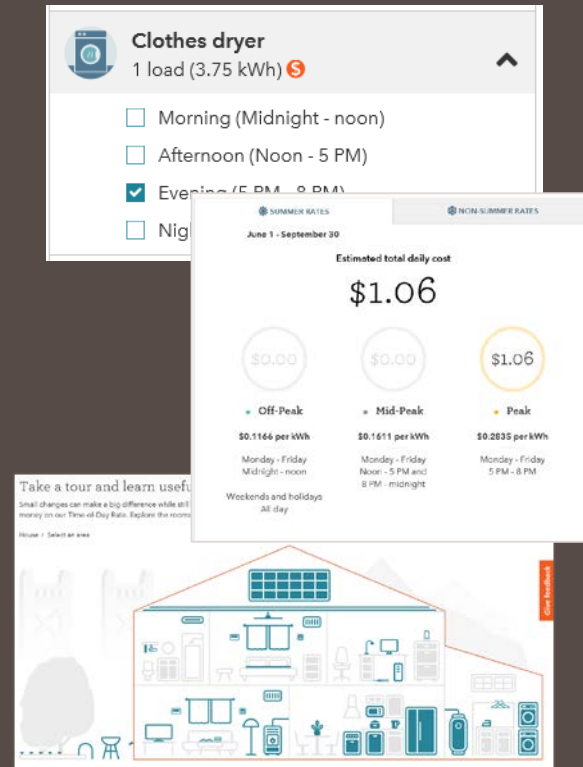
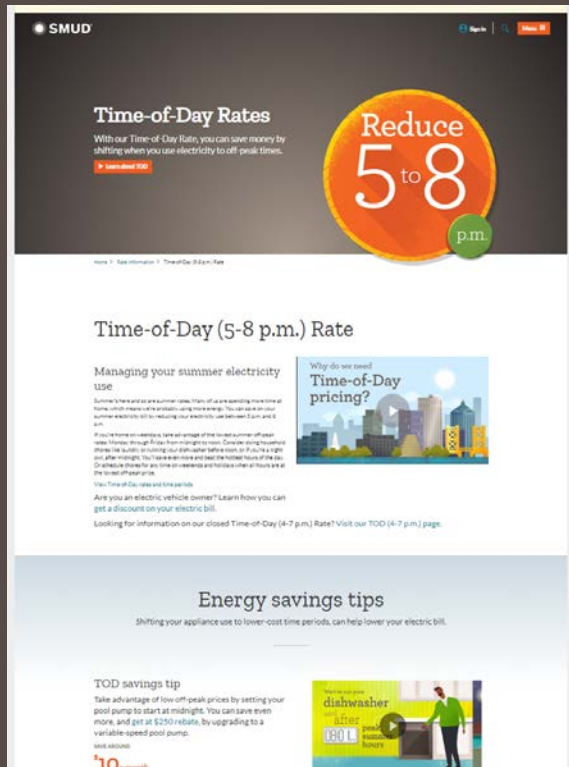
Resources to help manage energy use

smud.org/TimeOfDay

Tips
videos

TOD cost estimator tool
& interactive home

SMUD App
& Bill Alerts



Recap

- High Customer adoption
- TOD supports carbon reduction goals set by the Board
- Customers shifted and saved energy usage and bill savings during the 1st summer
 - Better results than anticipated
 - TOD brought environmental benefits
- Customers saw lower bills during COVID-19
- Being at home brings greater opportunity to shift energy use
- We have tools and resources to help customers manage their energy use
 - Customers have choice – the Standard TOD rate or the Fixed Rate

Questions