# Item 7 - Residential Time of Use Rate Update and Comparison

Community Advisory Committee June 27, 2019 Meeting
VCE Administrative Offices, Davis

VALLEY CLEAN ENERGY

# Item 7 - Agenda

- Background
- Comparison of RTOU rates across California
- Financial impact of RTOU on VCE
- CCA decisions to-date
- PG&E delivery charges compared to generation charges

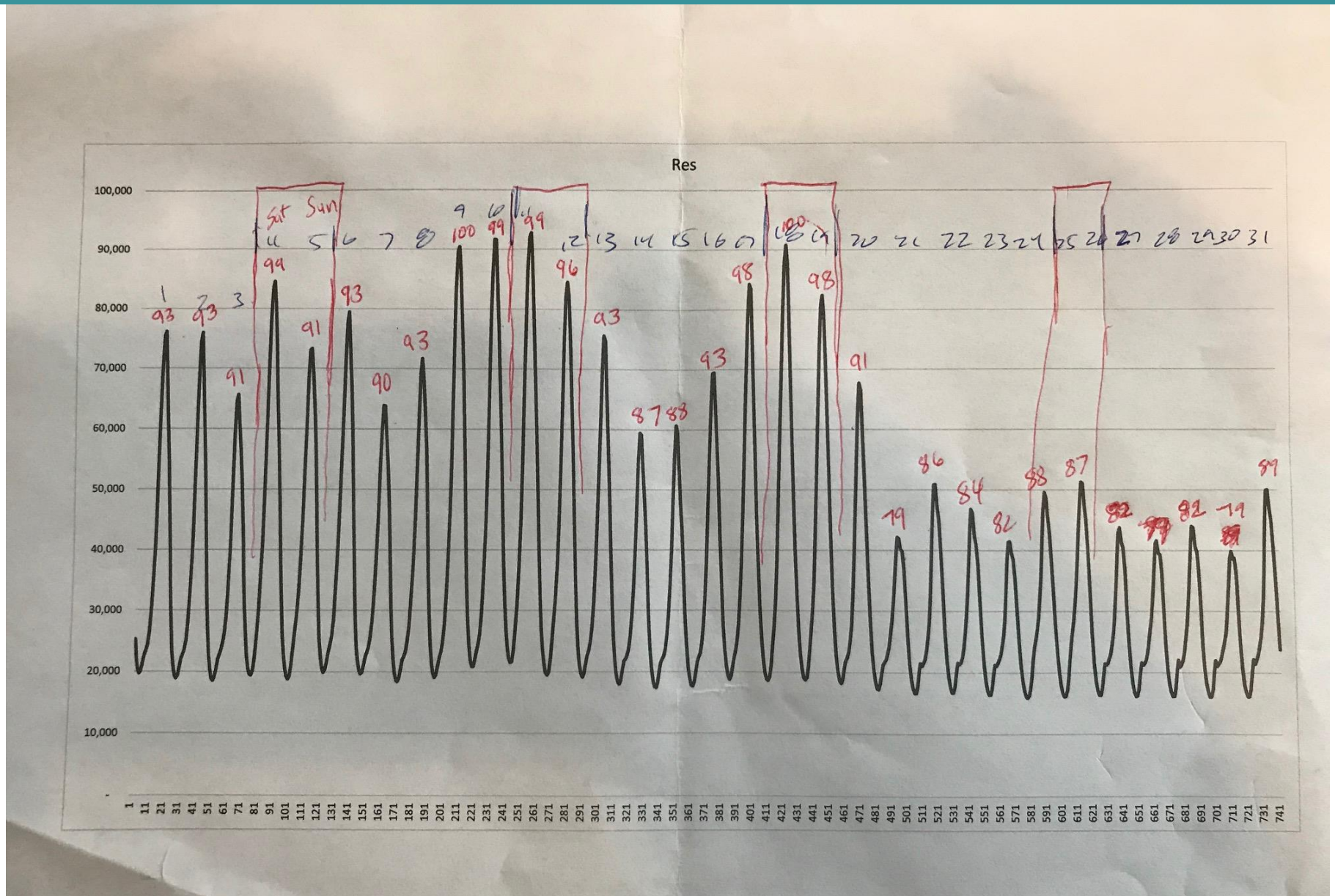
# Item 7 - Background

- The investor owned utilities are required by the CPUC to develop and implement residential time of use rates (RTOU)
- PG&E is working with the CCAs to implement the rates over a 13-month schedule beginning October 2020 – Yolo scheduled for Feb 2021
- **CCAs can choose whether or not to participate**
- **CCAs can choose whether or not to offer 1st year bill protection**

# Item 7 – CA RTOU Rates

| | 8 am | 9 am | 10 am | 11 am | 12 pm | 1 pm | 2 pm | 3 pm | 4 pm | 5 pm | 6 pm | 7 pm | 8 pm | 9 pm | 10 pm | 11 pm | 12 am | 1 am | 2 am | 3 am | 4 am | 5 am | 6 am | 7 am |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SMUD Time of Day Rates** | | | | | | | | | | | | | | | | | | | | | | | | |
| Summer Weekdays | $ 0.1166 | | | | $ 0.1611 | | | | $ 0.2835 | | | | $ 0.1611 | | | | $ 0.1166 | | | | | | | |
| Holidays/Weekends | $ 0.1166 | | | | | | | | | | | | | | | | | | | | | | | |
| Winter | $ 0.0969 | | | | | | | | $ 0.1338 | | | | $ 0.0969 | | | | | | | | | | | |
| Holidays/Weekends | $ 0.0969 | | | | | | | | | | | | | | | | | | | | | | | |
| **SCE TOU-D 4-9 & 5-8** | | | | | | | | | | | | | | | | | | | | | | | | |
| TOU-D 4-9 Summer | $ 0.230 | | | | | | | | $ 0.350 | | | | $ 0.230 | | | | | | | | | | | |
| Weekends | $ 0.219 | | | | | | | | $ 0.284 | | | | $ 0.219 | | | | | | | | | | | |
| TOU-D 4-9 Winter | $ 0.208 | | | | | | | | $ 0.302 | | | | $ 0.229 | | | | | | | | | | | |
| TOU-D 5-8 Summer | $ 0.218 | | | | | | | | $ 0.437 | | | | $ 0.218 | | | | | | | | | | | |
| Weekends | $ 0.218 | | | | | | | | $ 0.327 | | | | $ 0.218 | | | | | | | | | | | |
| TOU-D 5-8 Winter | $ 0.208 | | | | | | | | $ 0.354 | | | | $ 0.229 | | | | | | | | | | | |
| **SDG&E TOU-DR1 & DR2** | | | | | | | | | | | | | | | | | | | | | | | | |
| TOU-DR1 Summer | $ 0.350 | | | | | | | | $ 0.570 | | | | $ 0.300 | | | | | | | | | | $ 0.350 | |
| Weekends/Holiday | $ 0.190 | | | | | | $ 0.240 | | $ 0.460 | | | | 0.240 | | | | $ 0.190 | | | | | | | |
| TOU-DR1 Winter | $ 0.360 | | | | | | | | $ 0.370 | | | | $ 0.350 | | | | | | | | | | $ 0.360 | |
| Summer TOU DR-2 | $ 0.340 | | | | | | | | $ 0.530 | | | | $ 0.340 | | | | | | | | | | | |
| Winter TOU DR-2 | $ 0.360 | | | | | | | | $ 0.370 | | | | $ 0.360 | | | | | | | | | | | |
| **PG&E E-TOU-C** | | | | | | | | | | | | | | | | | | | | | | | | |
| E-TOU-C Summer | $ 0.262 | | | | | | | | $ 0.326 | | | | $ 0.262 | | | | | | | | | | | |
| E-TOU-C Winter | $ 0.275 | | | | | | | | $ 0.292 | | | | $ 0.275 | | | | | | | | | | | |

# Item 7 – Residential Load Profile



# Item 7 – Bill Protection Impacts

| | TOU MORE expensive than Tiered Rate | TOU LESS expensive than Tiered Rate |
|---|---|---|
| Estimated Annual Generation Bill Difference ($) | $300,934 | $141,697 |
| Number of Customers Impacted | 13,784 | 8,970 |
| Annual Bill Impact/Customer | $21.83 | $15.80 |

**If we provide Bill Protection—**

- We will credit customers $300,934 at year-end – this is an overpayment by customers and would essentially be net-zero to VCE
- Net benefitting customers would cumulatively get lower bills amounting to $141,697 – this is lost-revenue to VCE
- Future years – no Bill Protection, so VCE would see a net increase of revenues of $159,237 assuming conditions remain the same
- PG&E will recover “lost” revenues through rate change the following year

# Item 7 – CCA Decisions To-Date

- Redwood Coast Energy Authority has approved
- Staff recommendations in favor of RTOU have come from:
  - Sonoma Clean Power
  - Peninsula Clean Energy
  - East Bay Community Energy
  - Silicon Valley Clean Energy
- “Other CCAs seem favorable, but have not given me those additional details or insight”

# Item 7 – PG&E Delivery/Generation Charges

- Current PG&E TOU Rate, E-TOU-C3

**UNBUNDLING OF E-TOU-C3 TOTAL RATES**

| Energy Rates by Component ($ per kWh) | PEAK | | OFF-PEAK |
|---|---|---|---|
| **Generation:** | | | |
| Summer (all usage) | $0.17178 | (I) | $0.10834 |
| Winter (all usage) | $0.11532 | (I) | $0.09799 |
| **Distribution**:** | | | |
| Summer (all usage) | $0.10758 | (I) | $0.10758 |
| Winter (all usage) | $0.07695 | (I) | $0.07695 |

- Current rate does not have a Distribution differential

# Item 7 – PG&E Delivery/Generation Charges

- The CPUC Proposed Decision of 6/7/2019 requires a rate differential on distribution charges
- The price differential between peak and off-peak will be 6.3 cents/kWh during the summer
- The winter differential will be 1.7 cents/kWh
- The differential will be divided between distribution and generation—proportions unknown
- Even if CCAs opt-out of the rate, the delivery portion of the bill will be on TOU

# Item 7 - Next Steps

- PG&E presentation to VCE board (July 11)
- CAC recommendation (Aug or Sept)
- Board decision on VCE participation (Sept or Oct)
- VCE staff continues to participate on regular calls with the TOU working group

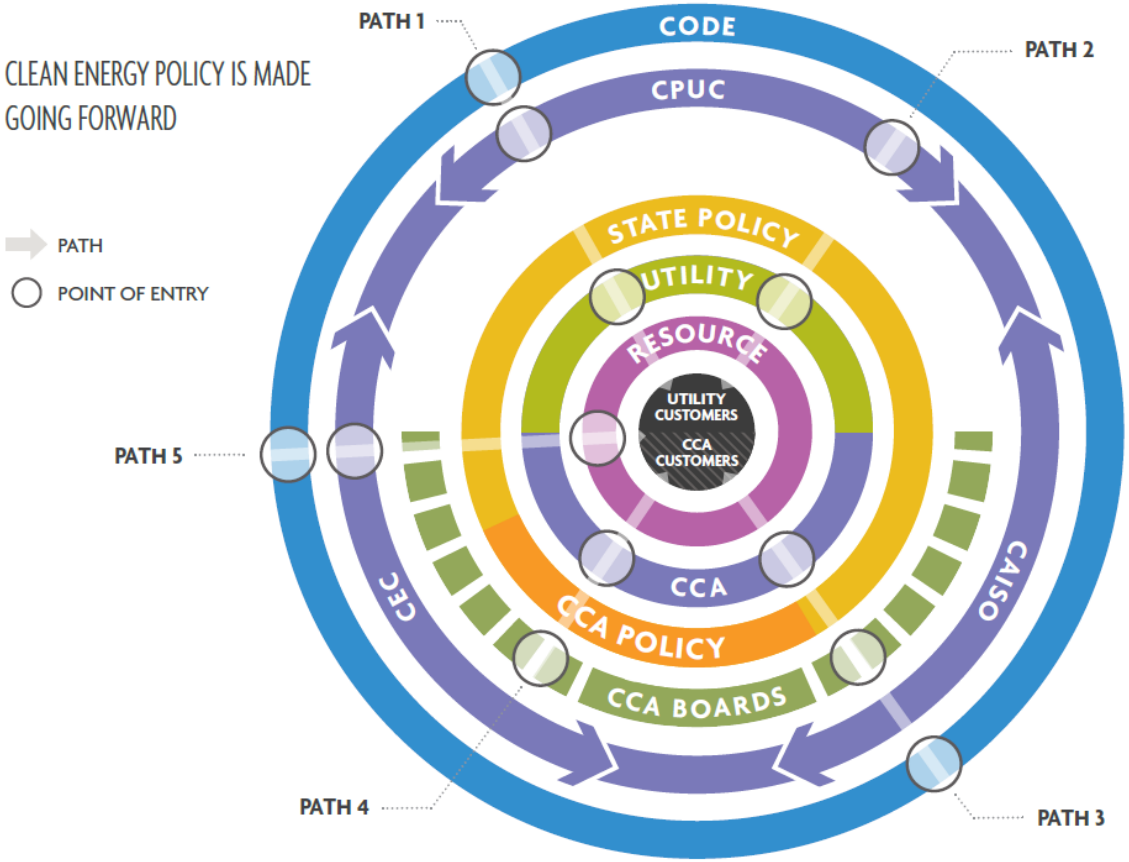
# Item 10 - PRESENTATION OVERVIEW – EE PROGRAMS

- Program paths for CCAs (ATA, ETA, IOU, self-funded)
- CPUC methods for adopting measures
- Measure types & deployment methods
- Third party programs
- PG&E offerings
- What other CCAs are doing
- VCE opportunities & discussion

Information assembled with the assistance of Frontier Energy staff

HOW CALIFORNIA CLEAN ENERGY POLICY IS MADE GOING FORWARD

Credit: Gridworks



# Apply to Administer and Elect to Administer Programs - General Requirements

- Comply with CPUC policies, procedures, auditing and reporting requirements
- Conform to CPUC evaluation, measurement, and verification protocols (Standard Practice Manual)
- Must include performance metrics
- Efficiency measures must pass cost-effectiveness test of 1.0 for first three years and 1.25 thereafter

# Apply to Administer

- Advantages
  - Can serve all customers, including opt-outs and customers outside CCA service territory
  - Provides the CCA with access to all IOU non-bypassable charges
- Disadvantages
  - Lumped into rolling portfolio timeline after initial application
  - Requires a large, detailed business plan which is a component of the application (MCE's is 36 pages)
  - Must define sectors, requires extensive analysis and market segmentation, proof that administration is highly qualified

# Elect to Administer

- Advantages
  - After checking off boxes can be approved through Tier 2 advice filing within 60 days (in theory)
  - Can be implemented anywhere in a program cycle
  - Provides the CCA with access to certain IOU non-bypassable charges
  - Provides the CCA with access to IOU non-bypassable charges
- Disadvantages
  - Excludes access to non-bypassable charges for statewide and regional programs authorized by the CPUC
  - Limited to CCA customers – not opted out customers

# Existing IOU Programs

- Advantages
  - Range of offerings for residential and commercial sectors
  - Three methods of deployment
  - Measures documented by work papers
- Disadvantages
  - Limited scope
  - Low uptake due to small incentives
  - Tailored to meet needs of entire service area

# Programs Funded from CCA Reserves

- Advantages
  - Not restricted to deemed measures
  - New measures do not have to be developed using the CPUC work paper process nor must they meet CPUC cost-effectiveness tests
  - EM&V methods do not have to follow the Standard Practice Manual
  - Can run in parallel with IOU programs
  - No “double-dipping” restrictions
- Disadvantages
  - No access to non-bypassable funds
  - Must develop discretionary procedures for evaluating and proving cost-effectiveness, measure adoption, incentive levels, and other program details

# CPUC Process for Developing EE Measures

- Work Papers
  - Technical engineering documents that prescribe pre-determined values for energy savings, measure costs, and other ex ante (predetermined) values
  - Typically developed by program administrators, more rarely third parties
- DEER & eTRM
  - Database for Energy Efficiency Resources ("DEER") maintains ex ante values
  - DEER is very challenging to navigate, difficult to find supporting documentation
  - DEER is actively being transitioned to an electronic technical reference manual (eTRM) under development by the California Technical Forum (CalTF)

# CPUC/IOU Measure Types & Deployment

- Deemed measures
  - Use values from DEER or CPUC approved work papers
  - Used for homogenous, high volume interventions
- Deployment methods for deemed measures
  - Upstream: To manufacturers. Must be statewide.
  - Midstream: To distributors, suppliers, retailers. Must be statewide.
  - Downstream: To end use customers, or a qualifying customer segment such as multifamily renters. By service territory.
  - Direct install: To contractor. By service territory.
- Custom measures
  - Developed for measures not specifically included in DEER
  - Require work papers
  - Normalized meter-based energy consumption (NMEC) verification is an option

# Third Party Programs

- Under Decision 18-01-004 the CPUC required IOU's to allocate 60% of energy efficiency funds to third-party designed and delivered programs by the end of 2022
- IOUs have issued RFAs targeted at the residential, commercial, industrial, agricultural, and public sectors (vary by utility)
- Proposals cannot include programs that overlap with or duplicate program offerings from IOUs, CCAs, and RENs
- Programs that go beyond EE and include demand response will not be considered part of the third party 60% requirement*

*Per the Conclusion of Law: 27. This round of strategic energy management programs and the staff-proposed programs for limited integration of energy efficiency and demand response should not count towards the third party percentage requirements ordered in this decision.

# PG&E Program Overview

| SINGLE FAMILY | MULTIFAMILY | COMMERCIAL | CROSS-CUTTING |
|---|---|---|---|
| Advanced Home Upgrade | Multifamily Upgrade | HVAC Optimization | Energy Advisor |
| California Advanced Homes | Multifamily EE Rebates | Savings by Design | Calc/Deemed Incentives |
| Energy Savings Assistance | CA Multifamily New Homes | | Direct Install |
| Plug Loads & Appliances | | | Continous Improvement |
| Residential HVAC | | | On-Bill Financing |
| | | | Codes and Standards |

# PG&E Downstream Residential Program Offerings

| Rebate Code | Description | Rebate |
|---|---|---|
| HV359 | **ENERGY STAR® Smart Thermostat** replacing manually operated thermostat | **$50/ household** |
| HV360 | **ENERGY STAR Smart Thermostat** replacing programmable thermostat | **$50/ household** |
| BW031 | **ENERGY STAR High-Efficiency Electric Heat Pump Storage Water Heater** Uniform Energy Factor (UEF) of 3.09 or greater and/or Energy Factor (EF) of 3.24 or greater | **$300/unit** |

# PG&E Midstream Residential Program Offerings

- Full ACCA Standard 4 HVAC System Assessment with Condenser Coil Cleaning - $40 initial
  Refrigerant Charge Adjustment - $50
- Efficient Fan Delay Rebate - $70
- Replacement Blower Motor Rebate - $220
- Additional Incentive (Must complete any two of the following: Refrigerant Charge Adjustment, Efficient Fan Delay, and Blower Motor Replacement) - $100

# Other Residential Programs

- Energy Upgrade California
  - Energy assessment by selected contractor
  - Select improvements
  - Rebates up to $5,500
- Energy Savings Assistance Program
  - Must meet income qualifications
  - Covers attic insulation, lighting, weather stripping, appliance replacement, building sealing, water heater blankets
- CAHP & CMFHP
  - For new single & multifamily residential buildings
  - Incentives based on Delta EDR (> 3.0)

# What other CCAs are doing

- Marin Clean Energy: Apply to Administer
  - Residential: Energy Upgrade California, Advanced Energy Rebuild Napa
  - Multifamily: Energy assessments, rebates, technical assistance, loans
  - Commercial: Energy assessments, rebates, project management, financing
- Lancaster Choice Energy: Elect to Administer
  - Lancaster Choice Energy is a member of CalChoice
  - Energy Advisor program – personalized energy advice for residential customers
  - Small Commercial Direct Install program – free or low-cost retrofits
- Sonoma Clean Power: funded through reserves
  - Lead Locally: CEC EPIC funding, brick and mortar Advanced Energy Center
  - Induction cooling: “borrow a cooktop”
  - Advanced Energy Rebuild: Help for rebuilding efficient, sustainable homes

# VCE Residential Program Opportunities

- Electrification
- Tailored EE improvements
  - Duct leakage testing & sealing
  - Attic/duct insulation
  - HVAC tune-ups – coil cleaning, duct upgrades & airflow improvements
  - Window replacement & shading
- Indoor air quality improvements
  - Sealing at garage walls
  - Eliminate indoor combustion appliances
  - Mechanical ventilation
- Food for thought
  - How to return savings to the program so that they can be used to fund additional incentives
  - Partnering with third party programs