

# ELECTRIC AND WATER RATE STRUCTURES

Finance/Rates Division

Customer Relations/Finance Committee  
May 16, 2022

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## RATEMAKING PRINCIPLES DRIVE RATE DESIGN

City Council  
Approved  
July 26, 2016

- Achieve full recovery of costs.
- Equitably allocate costs across and within customer classes.
- Encourage efficient use of water and electricity.
- Provide rate stability.
- Offer flexibility and options.
- Maintain rate competitiveness in region.
- Be simple and easy to understand.



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## RPU CURRENT RATES

Rate Type	Electric		Water	
	Residential	Other	Residential	Other
Residential / Domestic	X		X	
Domestic Time of Use / Electric Vehicle (EV)	X			
Commercial / Industrial		X		X
Economic Development		X		
Net Energy Metering	X	X		
Feed-In Tariff		X		
Stand-By-Service		X		
Agricultural & Pumping / Wind Machines		X		
Street / Outdoor Lighting		X		
Traffic Control Service		X		
Agricultural Service			X	X
Riverside Water Company Irrigators			X	X
Landscape / Interruptible Irrigation / Greenbelt Irrigation				X
Fire Protection / Fire Hydrants / Temporary Service				X
Recycled Water				X

## PROPOSITION 218

1. Approved by voters in 1996
2. Amended California Constitution
3. Requires voter approval prior to imposition or increase of general taxes, assessments, and certain user fees
4. Utility rates may not exceed the cost of providing the service
5. Any excess subject to voter approval
6. Applies to water, sewer and refuse rates
7. Does not apply to electric rates



## PROPOSITION 218: PROCESS APPROVAL OF RATES

1. 45 days' mailed notice of the proposed increase
2. Majority protest public hearing (50% plus 1)
3. Applies to water, refuse, sewer rates
4. Does not apply to electric rate



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## PROPOSITION 26

1. Approved by voters in 2010
2. Amended California Constitution
3. Reaction to *Sinclair Paint Co. v. State Board of Equalization*
  - a. 1997 California Supreme Court case
  - b. Upheld state fees imposed on business that made products containing lead
  - c. Fee funded health services to children and to mitigate lead contamination
  - d. Court upheld the fee as a regulatory fee



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## PROPOSITION 26

1. Requires voter approval of certain fees, levies, charges and tax revenue allocations
2. Seven exemptions
3. Overall effect: charges that exceed the cost of service must be approved by voters because they are now “taxes” unless exempt
4. Applies to electric rates
  - a. Electric rates may not exceed the cost of providing the service
  - b. Any excess requires voter approval



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## ELECTRIC RATES



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# ELECTRIC RATE TERMINOLOGY



**Customer Charge:**

- Monthly fixed charge that applies independent of consumption
- Also called a Basic Charge or Meter Charge



**Energy Charge:**

- Price per kWh
- May be more than one block (tier)
- May be seasonal, or time-varying



**Demand Charge:**

- Monthly charge based on the highest instantaneous usage rate (usually highest hour) during the month or year



**Reliability Charge:**

- Monthly charge based on panel size or monthly usage or demand depending on customer class



**Network Access Charge:**

- Monthly charge based on monthly usage or demand depending on customer class

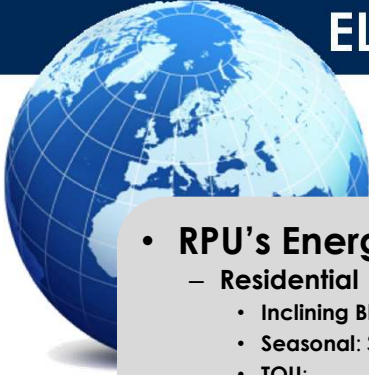


# ELECTRIC DEFINITIONS – RATE COMPONENTS

Rate Component	Definition	Fixed	Variable
Customer Charge	Recovers costs incurred in direct support of the customer including costs associated with labor, equipment, and investments for customer accounting, billing, and customer assistance.	X	
Energy Charge	Recovers costs that change with the changes in electric load. The primary example of energy-rated costs are fuel and purchased power costs.		X
Demand Charge	Recovers costs that are related to the existing and future investments made to produce, transmit, and deliver power from the generation resources to customers.	X	
Network Access Charge	Recovers the demand-related costs to maintain the distribution system to provide power and energy to service customers.	X	
Reliability Charge	Recovers costs to improve the reliability of Riverside's internal transmission system and provide internal generation of power and energy to service customers.	X	





# ELECTRIC ENERGY RATE TYPES



**• RPU's Energy Rate Types**

- **Residential**
  - **Inclining Block:** Higher price for increased usage
  - **Seasonal:** Summer and winter tier allocation
  - **TOU:**
    - On, mid, and off-peak periods based on time of delivery
    - Higher price for on-peak hours
    - TOU with Inclining Block
- **Commercial**
  - **Inclining Block**
  - **Inclining Block with Demand**
  - **TOU with Demand**

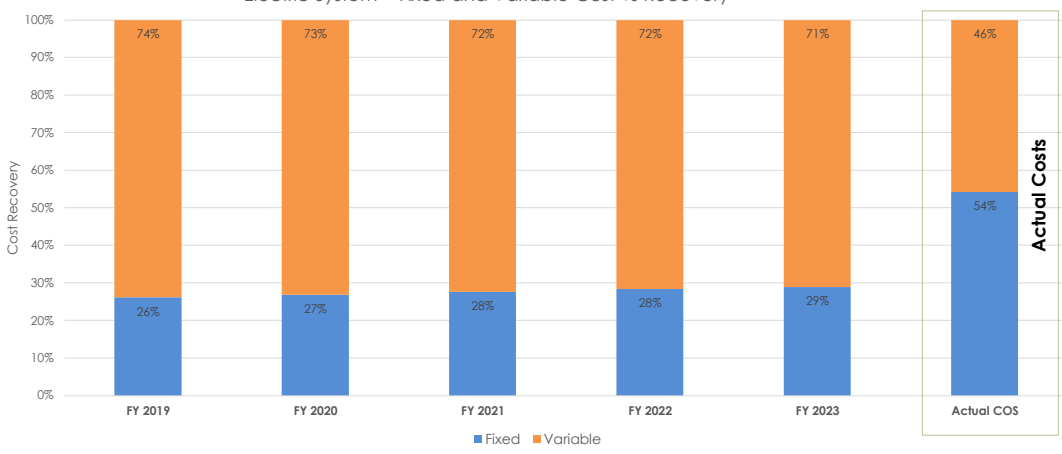



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# FIXED VS. VARIABLE

Electric System - Fixed and Variable Cost vs Recovery



Year / Category	Fixed Cost (%)	Variable Cost (%)
FY 2019	26%	74%
FY 2020	27%	73%
FY 2021	28%	72%
FY 2022	28%	72%
FY 2023	29%	71%
Actual COS	54%	46%



Note: From 2018 Electric Cost of Service Analysis Report

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## ELECTRIC RATE STRUCTURES - DOMESTIC

Effective January 1, 2022

<b>Customer Charge (\$/month)</b>	\$11.26
<b>Network Access Charge (\$/month)</b>	
Tier 1 (< or = 12 Daily Avg kWh Usage)	\$1.94
Tier 2 (>12 - 25 Daily Avg kWh Usage)	\$4.65
Tier 3 (>25 Daily Avg kWh Usage)	\$10.24
<b>Energy Charge (\$/kWh)</b>	
Tier 1 (0-750 S; 0-350 W)	\$0.1087
Tier 2 (751-1,500 S; 351-750 W)	\$0.1729
Tier 3 (>1,500 S; >750 W)	\$0.1961
<b>Reliability Charge (\$/month)</b>	
Small Residence (<100 Amp)	\$10.00
Medium Residence (101-200 Amp)	\$20.00
Large Residence (201-400 Amp)	\$40.00
Very Large Residence (>400 Amp)	\$60.00

Notes:

- 1) Includes Multi-Family with tier allotments for each individual family accommodation.
- 2) Includes closed variations for electric water heat, electric space heater, and all electric homes.

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## ELECTRIC RATE STRUCTURES – DOMESTIC TIME-OF-USE

Effective  
January 1, 2022

<b>Customer Charge (\$/Month)</b>	\$11.26
<b>Network Access Charge (\$/month)</b>	
Tier 1 (< or = 12 Daily Avg kWh Usage)	\$1.94
Tier 2 (>12 - 25 Daily Avg kWh Usage)	\$4.65
Tier 3 (>25 Daily Avg kWh Usage)	\$10.24
<b>Energy Charge (\$/kWh)</b>	
Summer– On Peak Tier 1 (0-330 kWh)	\$0.1834
Tier 2 (>330 kWh)	\$0.2934
Summer– Mid Peak Tier 1 (0-550 kWh)	\$0.1192
Tier 2 (> 550 kWh)	\$0.1907
Summer – Off Peak Tier 1 (0-220 kWh)	\$0.0917
Tier 2 (>220 kWh)	\$0.1467
Winter – On Peak Tier 1 (0-135 kWh)	\$0.1376
Tier 2 (>135 kWh)	\$0.2202
Winter – Mid Peak Tier 1 (0-250 kWh)	\$0.1100
Tier 2 (>250 kWh)	\$0.1760
Winter – Off Peak Tier 1 (0-115 kWh)	\$0.0917
Tier 2 (>115 kWh)	\$0.1467
<b>Reliability Charge (\$/month)</b>	
Small Residence (<100 Amp)	\$10.00
Medium Residence (101-200 Amp)	\$20.00
Large Residence (201-400 Amp)	\$40.00
Very Large Residence (>400 Amp)	\$60.00

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## ELECTRIC RATE STRUCTURES – DOMESTIC ELECTRIC VEHICLE SEPARATELY METERED

Effective January 1, 2022

<b>Customer Charge (\$/Month)</b>	\$11.26
<b>Energy Charge (\$/kWh)</b>	
Summer Season	
On Peak	\$0.2714
Mid Peak	\$0.1550
Off Peak	\$0.1087
Winter Season	
On Peak	\$0.2037
Mid Peak	\$0.1430
Off Peak	\$0.1087

Note: Customer receives one Domestic Rate Tier 3 Network Access Charge.

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## ELECTRIC RATE STRUCTURES – COMMERCIAL – FLAT CLASS

Effective January 1, 2022

<b>Customer Charge (\$/month)</b>	\$20.50
<b>Network Access Charge (\$/month)</b>	
Tier 1 (0–500 kWh)	\$2.79
Tier 2 (501–1,500 kWh)	\$7.91
Tier 3 (1501–3000 kWh)	\$14.08
Tier 4 (>3000 kWh)	\$33.86
<b>Energy Charge (\$/kWh)</b>	
Tier 1 (0-15,000 kWh)	\$0.1450
Tier 2 (>15,000 kWh)	\$0.2215
<b>Reliability Charge (\$/month)</b>	
Tier 1 (0-500 kWh)	\$10.00
Tier 2 (501–1,500 kWh)	\$30.00
Tier 3 (>1,500 kWh)	\$60.00

Note: Applicable to commercial customers with a monthly maximum demand not exceeding 20 kW in any two of the preceding 12 months.

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## ELECTRIC RATE STRUCTURES – COMMERCIAL – DEMAND CLASS

Effective January 1, 2022

<b>Customer Charge (\$/month)</b>	\$17.68
<b>Network Access Charge (\$/kW)</b>	\$1.40
<b>Energy Charge (\$/kWh)</b>	
Tier 1 (0-30,000 kWh)	\$0.1212
Tier 2 (>30,000 kWh)	\$0.1328
<b>Demand Charge (\$/kW)</b>	
First 15 kW	\$160.20
All excess kW	\$10.68
<b>Reliability Charge (\$/month)</b>	\$90.00

Note: Applicable for commercial customers with a billing demand equal to or exceeding 20 kW but less than 150 kW in any two of the preceding 12 months.

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## ELECTRIC RATE STRUCTURES – INDUSTRIAL TIME-OF-USE CLASS

Rate Component	Effective January 1, 2022
<b>Customer Charge (\$/month)</b>	\$666.28
<b>Network Access Charge (\$/Max kW)</b>	\$2.34
<b>Energy Charge (\$/kWh)</b>	
On-Peak	\$0.1124
Mid-Peak	\$0.0922
Off-Peak	\$0.0787
<b>Demand Charge (\$/kW)</b>	
On-Peak	\$7.27
Mid-Peak	\$3.64
Off-Peak	\$1.82
<b>Reliability Charge (\$/month, on Max kW)</b>	
<= 100 kW	\$350.00
101-150 kW	\$750.00
151-250 kW	\$900.00
251-500 kW	\$1,100.00
501-750 kW	\$1,850.00
> 750 kW	\$2,650.00

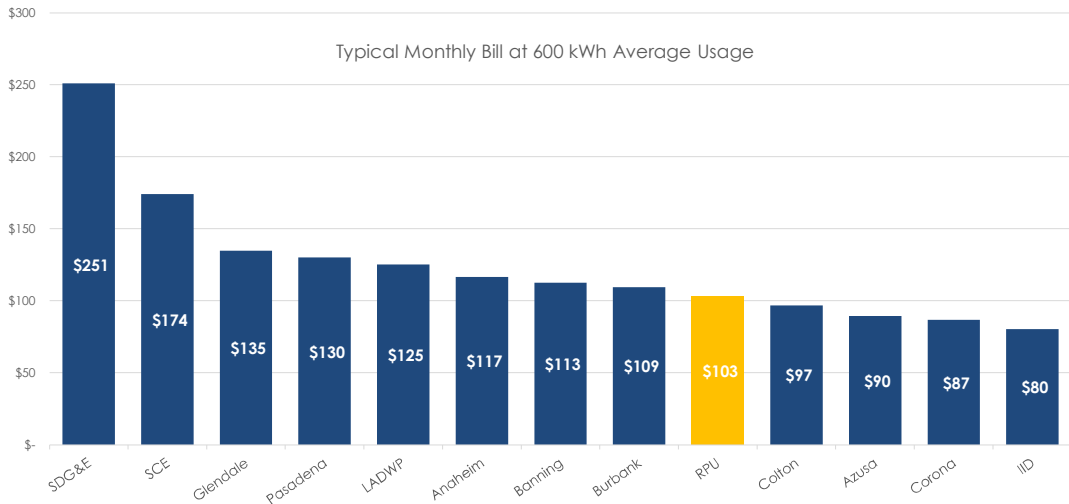
Note: Applicable for a commercial/industrial customers with a monthly demand level equal to or exceeding 150 kW for any two of the preceding 12 months.

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# ELECTRIC RESIDENTIAL RATE COMPARISON



Note: Rates effective as of 3/1/22 including RPU's effective 1/1/22.

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# WATER RATES



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# WATER RATE TERMINOLOGY



### **Customer Charge:**

- Monthly fixed charge that applies independent of consumption
- Also called a Basic Charge or Meter Charge
- Based on meter size



### **Quantity/Consumption Charge:**

- Price per CCF (One hundred cubic feet = 748 gallons)
- May be more than one block (tier)
- May be seasonal



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# WATER DEFINITIONS – RATE COMPONENTS



Rate Component	Definition	Fixed	Variable
Customer Charge	Fixed costs that relate to operational support activities including accounting, billing, customer service, and administrative and technical support, along with meter and capacity related costs such as maintenance and system capital based on each customer's capacity.	X	
Quantity/Consumption Charge	Recovers costs incurred by the water system to provide a basic level of service, and the sources of supply costs.		X
Outside City	Additional capital costs incurred to meet demands for water from the City's customers who reside outside of the City and who require additional infrastructure to receive water service.	X	X




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# WATER RATE TYPES

- **RPU's Rate Types**
  - **Inclining Block:** Higher price for increased usage
  - **Seasonal:** Higher price in peak season (summer)
  - **Budgets:** Individual Agricultural Water Allocation


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# FIXED VS. VARIABLE

## Water System - Fixed and Variable Cost vs Recovery

Year	Fixed Cost Recovery (%)	Variable Cost Recovery (%)
FY 2018/19	28%	72%
FY 2019/20	31%	69%
FY 2020/21	34%	66%
FY 2021/22	36%	64%
FY 2022/23	39%	61%
Actual COS	90%	10%

■ Fixed ■ Variable


Note: From 2018 Water Cost of Service Analysis Report

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## WATER RATE STRUCTURES – CUSTOMER CHARGE \*

<b>Meter Size</b>	<b>Effective July 1, 2021</b>
3/4" & 5/8"	\$23.08
1"	\$36.63
1.5"	\$70.22
2"	\$110.68
3"	\$205.16
4"	\$340.10
6"	\$744.72
8"	\$1,216.71
10"	\$1,891.02
12"	\$2,700.26

\* Customer Charges are uniform among all rate classes.

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## WATER RATE STRUCTURES - RESIDENTIAL

<b>Single Family Residential WA-1A</b>	<b>Effective July 1, 2021</b>	
<b>Consumption Rates (\$/CCF*)</b>	<b>Winter</b>	<b>Summer</b>
Tier 1 (First 9)	\$1.26	\$1.26
Tier 2 (10-35)	\$1.58	\$1.58
Tier 3 (> 35)	\$2.91	\$3.55

<b>Multi-Family Residential WA-1B**</b>	<b>Effective July 1, 2021</b>	
<b>Consumption Rates (\$/CCF*)</b>	<b>Winter</b>	<b>Summer</b>
Tier 1 (First 7 per unit)	\$1.25	\$1.25
Tier 2 (> 7 per unit)	\$1.81	\$2.05

\* One hundred cubic feet (CCF) = 748 gallons

\*\*Applicable to Multi-Family Dwelling Units with 2 to 4 units.

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## WATER RATE STRUCTURES – COMMERCIAL, INDUSTRIAL, OTHER

<b>Commercial and Industrial WA-6</b>		<b>Effective July 1, 2021</b>	
<b>Consumption Rates (\$/CCF*)</b>	<b>Winter</b>	<b>Summer</b>	
All Usage	\$1.58	\$1.84	

<b>Interruptible City WA-7 &amp; Recycled Water WA-10</b>		<b>Effective July 1, 2021</b>	
<b>Consumption Rates (\$/CCF*)</b>	<b>Winter</b>	<b>Summer</b>	
All Usage	\$1.57	\$1.57	

<b>Landscape Irrigation WA-11</b>		<b>Effective July 1, 2021</b>	
<b>Consumption Rates (\$/CCF*)</b>	<b>Winter</b>	<b>Summer</b>	
All Usage	\$1.67	\$2.14	

\* One hundred cubic feet (CCF) = 748 gallons

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## WATER RATE STRUCTURES – AGRICULTURAL SERVICE

<b>WA-12 Agricultural Service With Residence</b>		<b>Effective July 1, 2021</b>	
<b>Consumption Rates (\$/CCF**)</b>	<b>Winter</b>	<b>Summer</b>	
Tier 1 (First 9)	\$1.26	\$1.26	
AWA* (CCF allocation per customer)	\$1.26	\$1.26	
Tier 2 (Next 26 CCF above Tier 1+AWA)	\$1.58	\$1.58	
Tier 3 (all CCF above Tier 1+AWA+Tier 2)	\$2.91	\$3.55	

<b>WA-12 Agricultural Service Without Residence</b>		<b>Effective July 1, 2021</b>	
<b>Consumption Rates (\$/CCF**)</b>	<b>Winter</b>	<b>Summer</b>	
AWA* (CCF allocation per customer)	\$1.26	\$1.26	
All CCF above AWA	\$1.58	\$1.84	

\*AWA: Agricultural Water Allocation in CCF per month, per Customer

AWA = evapotranspiration rate x crop factor x irrigated planted area x irrigation efficiency factor

\*\* One hundred cubic feet (CCF) = 748 gallons

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## WATER RATE STRUCTURES - GAGE

<b>Greenbelt Irrigation Service (WA-8)</b>			<b>Effective June 1, 2021</b>
<b>Customer Charge</b>	(Per Meter/Per Month)		\$9.92
<b>Minimum Charge</b>	(Per Meter/Per Month/Per Acre)	Gage Canal Co. Rate	\$33.33
(First 156 CCF* per acre)			
<b>Excess water/variable charges</b>			
(Over 156 CCF per month per acre) (Per CCF/Per Month/Per Meter)			
Next 156 CCF		Gage Canal Co. Rate	\$0.433
CCF in excess of 312 CCF		Gage Canal Co. Rate	\$0.866
<b>Transportation Charge</b>	(Per CCF/Per Month/Per Meter)	Gage Canal Co. Rate	\$0.1922



\* One hundred cubic feet (CCF) = 748 gallons

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## WATER RATE STRUCTURES - OTHER

<b>Riverside Water Company Irrigators WA-4</b>	<b>Effective July 1, 2021</b>	
<b>Consumption Rates (\$/CCF*)</b>	<b>Winter</b>	<b>Summer</b>
Tier 1 (First 15)	\$1.29	\$1.29
Tier 2 (16-70)	\$1.55	\$1.55
Tier 3 (>70)	\$2.40	\$3.10

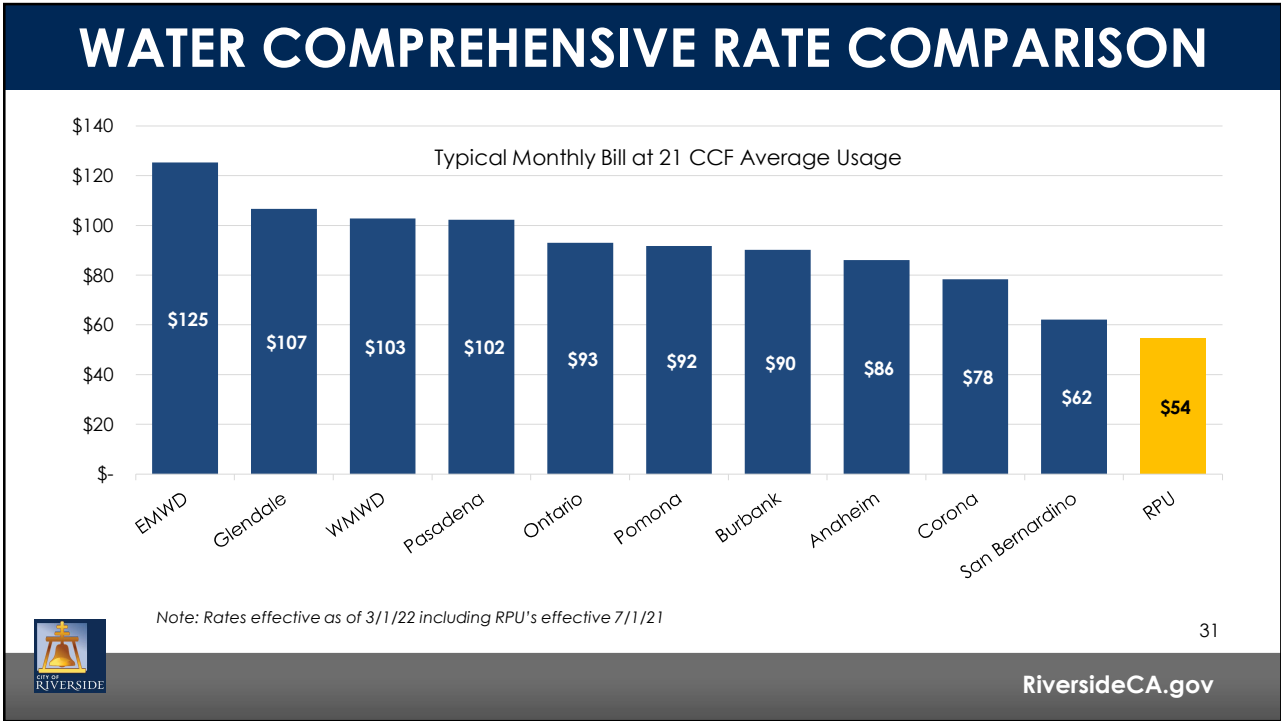
<b>Temporary Service WA-2</b>	<b>Effective July 1, 2021</b>
<b>Consumption Rates (\$/CCF*)</b>	
All Usage	\$2.39
<b>Rental Fee</b>	
Daily Rental Fee	\$13.04
Fee (26 days - 34 days)	\$391.00

\* One hundred cubic feet (CCF) = 748 gallons

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## STRATEGIC PLAN ALIGNMENT

**Strategic Priority 6** - Infrastructure, Mobility & Connectivity


**Goal 6.2** - maintain, protect and improve assets and infrastructure within the City's built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity

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### Cross-Cutting Threads




Community Trust




Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation

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## RECOMMENDATIONS

That the Customer Relations/Finance Committee receive an update on Riverside Public Utilities' electric and water rate structures.

