



## RESOURCE ADEQUACY PURCHASE AND SALE AGREEMENT FROM THE SHIRK ENERGY STORAGE FACILITY

### Public Utilities Department

**City Council**  
July 2, 2024

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## BACKGROUND

1. Resource Adequacy (RA) describes an electric utility's procurement of sufficient power supply capacity to serve its customers' projected electricity requirements, plus an additional amount to be held in reserve for unanticipated circumstances.
2. RA Program requirements are governed by the CAISO Tariff.
  - CAISO Tariff provides an option for the local regulatory authority of publicly owned utilities to adopt their own guidelines that meet certain criteria.



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## RPU RA PROGRAM HISTORY

1. May 23, 2006 – City Council established its own RA Program in accordance with the CAISO Tariff.
2. June 5, 2016 – City Council approved a revised RA Program which reflected the current market conditions and ensured efficient implementation while enhancing reliability.
3. August 18, 2020 – City Council approved specific revisions to the RA Program to eliminate provisions that were no longer applicable and facilitated the ability to acquire less expensive RA.



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## RPU RA PROGRAM HISTORY

1. RPU meets most of its RA requirements by purchasing the capacity attributes from generation resources under long term power purchase agreements (PPAs). However, RPU still needs to buy additional RA for non-winter months, with most of this need occurring during July, August, and September.
2. This additional RA need has grown over time as the City has procured more wind and solar resources, since these resources do not provide the same amounts of qualifying RA.
3. California's accelerated retirements of natural gas resources has now created a supply shortage of RA.

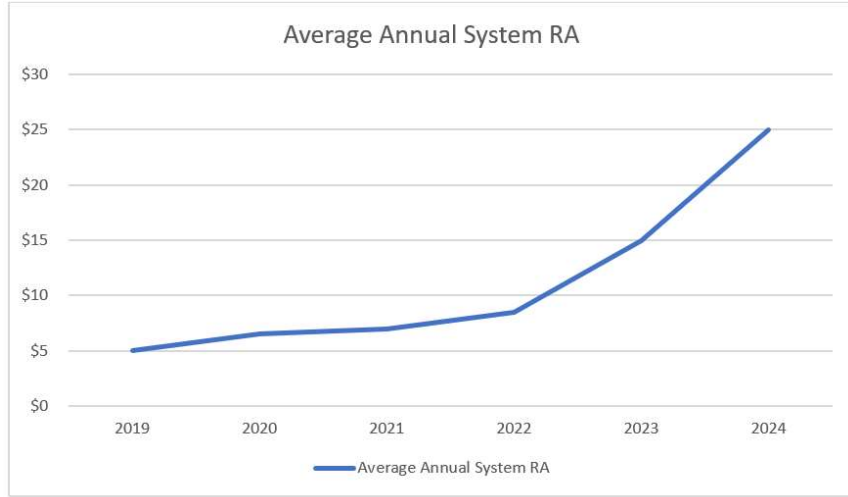


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## SOCAL RA PRICES SINCE 2019

Year	Q3 Marks – System RA (\$/kW-month)
2019	Under \$10.00
2020	\$10.00-\$15.00
2021	\$15.00-\$20.00
2022	\$20.00-\$40.00
2023	\$35.00-\$55.00
2024	\$65.00-\$100.00



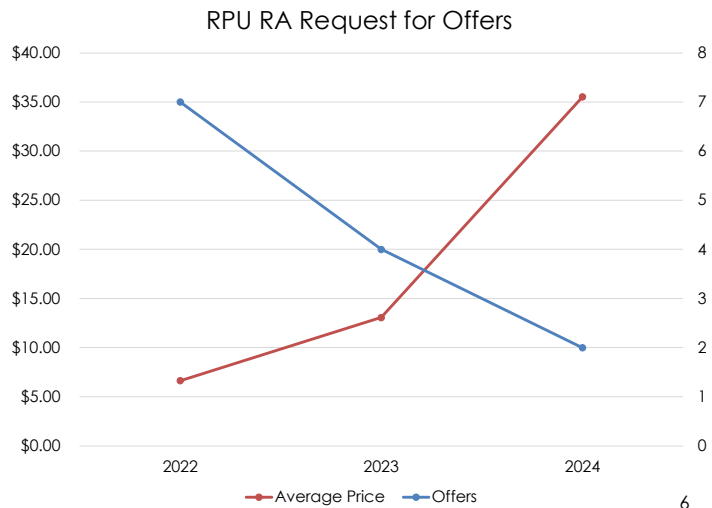
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## RECENT RPU RA PRICE DATA

Year	Market Operations RA Request for Offers Responses	Average Price
2022	7 Offers	\$6.65/kW-month
2023	4 Offers	\$13.06/kW-month
2024	2 Offers	\$35.53/kW-month

While such exorbitant price increases are unsustainable over the long-term, staff expect that the CA merchant capacity market may remain excessively volatile for the next 2-5 years.



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## SHIRK ENERGY STORAGE AGREEMENT

1. In 2023, staff began looking for Battery Energy Storage solutions to address the following concerns:
  - RPU has a growing need for RA
  - RA Prices continue to increase
  - RPU's sustainability and carbon reduction goals
2. The Shirk RA Agreement will be RPU's first long-term RA contract.
  - Located in Visalia, CA (industrial site)
  - 80 MW of RA Capacity (decreases 2% annually)
  - Qualifies as both Local and Cat 2 Flex



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## AGREEMENT TERMS

1. **Contract Price:** \$7.94/kW-month, fixed for 15 years
2. **Commencement Date:** 3/1/2026
  - a. Failure to achieve commencement by March 1 will result in damages of \$200,000/month paid to RPU.
  - b. Outside Commencement Date: 12/31/2026 - RPU Termination right
3. **Early Commencement Date Bonus:**
  - a. Incentivize facility to begin deliveries prior to Summer of 2025

Commencement Date	Early Commencement Date Bonus (\$/kW-month)
On or before June 1, 2025	\$1.35
After June 1, 2025 but on or before July 1, 2025	\$1.10
After July 1, 2025 but on or before August 1, 2025	\$0.60



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## AGREEMENT TERMS

1. **Delivered Product:** All RA attributes including Local and Flex Category 2 RA benefits.
2. **Resource Adequacy Guarantee:**
  - a. Provides RA benefits throughout the term of the agreement.
  - b. Failure to deliver RA benefits could result in the payment of liquidated damages.
3. **Development Security:** \$3,600,000



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## AGREEMENT TERMS

4. **Performance Security:** \$4,800,000
5. **Compliance Expenditure Cap:** \$400,000 annually with a total of \$1.2M for the duration of the agreement.



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# FINANCIAL ASSESSMENT

Contract Year	Year	Expected RA (MW)	Contract Price (\$/kW-mo)	Expected Annual Cost (\$)	2023 IRP RA Value (\$/kW-mo)	Net Value (\$)
1	2026	79.8	\$7.94	\$7,603,344	\$14.00	\$5,803,056
2	2027	78.0	\$7.94	\$7,431,840	\$12.00	\$3,800,160
3	2028	76.5	\$7.94	\$7,288,920	\$11.50	\$3,268,080
4	2029	75.1	\$7.94	\$7,155,528	\$11.00	\$2,757,672
5	2030	73.7	\$7.94	\$7,022,136	\$10.00	\$1,821,864
6	2031	72.4	\$7.94	\$6,898,272	\$9.75	\$1,572,528
7	2032	71.2	\$7.94	\$6,783,936	\$9.50	\$1,332,864
8	2033	70.0	\$7.94	\$6,669,600	\$9.25	\$1,100,400
9	2034	68.9	\$7.94	\$6,564,792	\$9.00	\$876,408
10	2035	67.8	\$7.94	\$6,459,984	\$9.00	\$862,416
11	2036	66.7	\$7.94	\$6,355,176	\$9.25	\$1,048,524
12	2037	65.7	\$7.94	\$6,259,896	\$9.50	\$1,229,904
13	2038	64.6	\$7.94	\$6,155,088	\$9.75	\$1,403,112
14	2039	69.5	\$7.94	\$6,621,960	\$10.00	\$1,718,040
15	2040	68.3	\$7.94	\$6,507,624	\$10.25	\$1,893,276
<b>Average:</b>		71.2		\$6,785,206		\$2,032,554
<b>Total:</b>		1068.2		\$101,778,096		\$30,488,304

- Provides < \$8/kW-month RA price hedge for 15 years.
- Protects against hyper-inflated RA costs that may continue for the next 2-5 years.
- Contract has an expected net positive value of 30.5 M\$.



# STRATEGIC PLAN ALIGNMENT



## Priority 2 – Community Well-Being

**Goal 2.6:** Strengthen community preparedness for emergencies and disruptive events to ensure effective response and recovery.

### Cross-Cutting Threads



Community Trust



Equity



Fiscal Responsibility



Innovation



Sustainability & Resiliency



## RECOMMENDATIONS

That the City Council:

1. Approve the Resource Adequacy Purchase and Sale Agreement with Vesi 15 LLC for 80 megawatts of capacity from the Shirk Energy Storage Facility for a term of fifteen years and an estimated average annual cost of \$7,600,000; and
2. Authorize the City Manager, or designee, to execute the Resource Adequacy Purchase and Sale Agreement and all documents necessary to administer the Agreement including the ability to make non substantive changes, as well as to execute future amendments to the Resource Adequacy Purchase and Sale Agreement under terms and conditions substantially similar or superior to the Resource Adequacy Purchase and Sale Agreement or, if needed, to terminate the Resource Adequacy Purchase and Sale Agreement in accordance with Agreement terms and conditions.

