

SELF-GENERATION PROGRAM

Riverside Public Utilities

City Council
May 10, 2022

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BACKGROUND

Current Net Energy Metering (NEM) Program

1. Governed by Public Utilities Code 2827 pertaining to customer renewable electrical generation facilities including solar and wind
 - a. Required until total installations meet 5% of peak demand (32 MW for RPU)
2. Net Energy Metering Billing
 - a. Billed on net energy delivered to customer and excess energy received by RPU from customer
3. Net Energy Surplus Compensation
 - a. Customer is compensated for net excess energy sent to RPU at end of year
 - b. Compensation rate is RPU's average cost of renewable energy

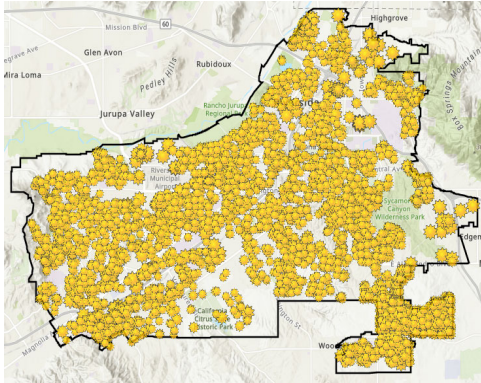


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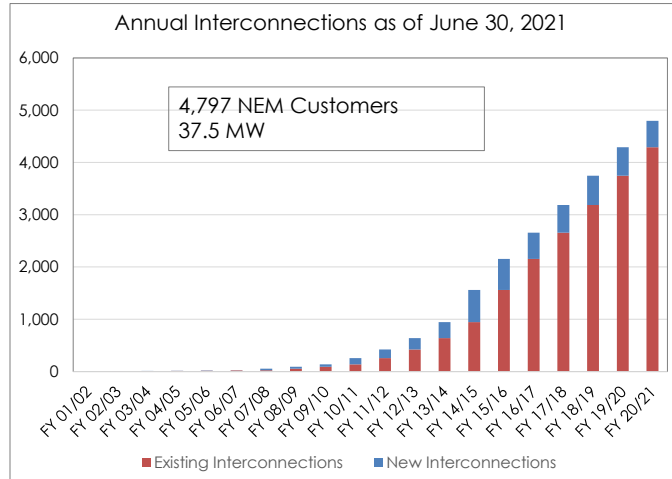
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CUSTOMER INTERCONNECTIONS



<http://greenriverside.com/map-links/green-map.asp>



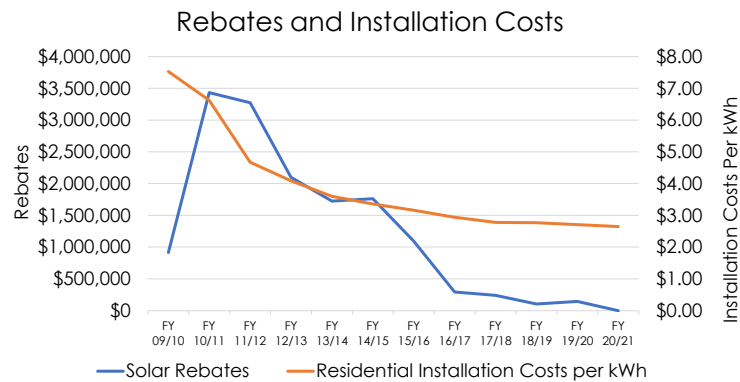
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SOLAR INTERCONNECTIONS

Continued to average 550 solar installations per year from FY 14/15 through FY 20/21, although RPU rebates and costs have declined.



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WHY IS IT TIME TO CHANGE?

1. Cost shift from those with self-generation to those without self-generation under the current NEM program
 - a. Solar customers receive full retail price for electricity they export to the grid
 - b. The retail rate exceeds the value of excess electricity exported to the grid. The retail energy rate includes fixed utility costs that are borne by all customers
 - c. Costs embedded in rates are transferred to those who cannot install solar



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WHY IS IT TIME TO CHANGE (CONT.)

2. Permitted to change structure under Public Utilities Code 2827 due to capacity of installed solar
 - a. State mandated program participation of 5% of system peak of 640 MW = 32 MW
 - b. 37.5 MW of solar installations as of June 30, 2021



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BENEFITS TO UPGRADE THE PROGRAM

1. Continue to make self-generation including solar, wind, and other renewable energy accessible to our community
2. Ensure that there is greater equity across community by reducing cost shift to customers without self-generation
 - a) Cost shift under current program could reach \$30 million by 2037- as referenced in 2018 Integrated Resource Plan
3. Simplify application process by eliminating service agreement
4. Make the process more transparent and easier to understand
5. Increase the growth of sustainable self-generation within the community and lower dependence on fossil fuel fired generation
6. The revised program will be more inclusive and capture benefits created from new and future technology for renewable generation



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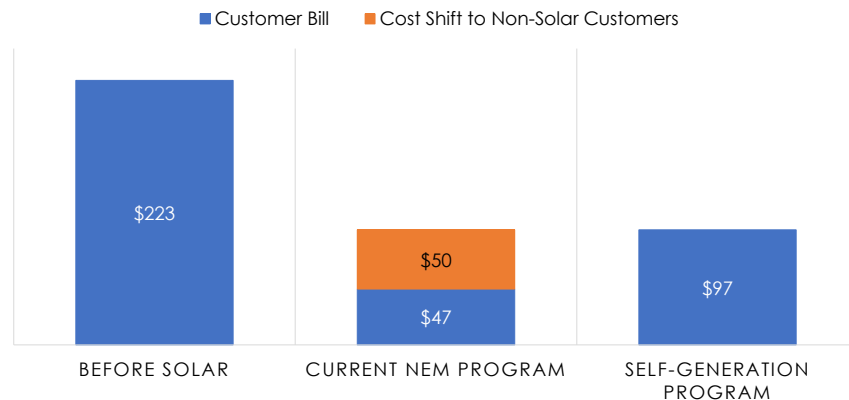
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BILL COMPARISON

Residential customer with 1,200 kWh average usage and solar sized at 90% of average usage 7.4 kW AC System

RESIDENTIAL MONTHLY BILL COMPARISON



Electric rates effective as of 1/1/2022

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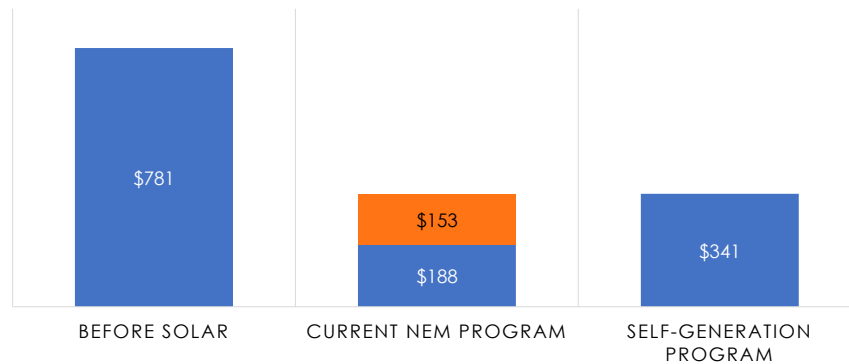
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BILL COMPARISON

Commercial customer with 4,600 kWh average usage and solar sized at 80% of average usage 25.20 kW AC System

COMMERCIAL MONTHLY BILL COMPARISON

■ Customer Bill ■ Cost Shift to Non-Solar Customers



Electric rates effective as of 1/1/2022

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SELF-GENERATION PROGRAM PRINCIPLES

Proposed principles:

1. Ensure that customers' renewable self-generation continues to grow in a sustainable and equitable manner.
2. Maintain customer and community well-being as priority in the self-generation program.
3. Continued commitment to:
 - a. Transparency and engagement by maintaining communication with all stakeholders.
 - b. Meeting environmental goals while maintaining a balance between climate policies, reliability, and competitive rates.
 - c. Maximizing the value of renewable self-generation across all Utility customers (with or without self-generation).

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CUSTOMER ENGAGEMENT

In addition to in-person and virtual meetings, outreach and materials included:

1. Suite of bilingual outreach **materials** including: 'Tell Us What You Think', 'Keywords' and side-by-side outline of the existing and proposed programs



2. **Media page** with content mirroring the Self-Generation materials
3. **Social media** posts on Facebook, Instagram and Twitter linking to the media page
4. **Residential direct email**
5. A bilingual video reviewing the proposed changes hosted online



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PROPOSED SELF-GENERATION PROGRAM

Current NEM Program	Proposed Self-Generation Program
Renewable Electric Generation Facility including solar, wind and other renewable resources	No change
Maximum size limit 1 MW	Maximum size limit 5 MW
Size limit to historical average usage	Consider relaxing size limit up to 150% of annual energy consumption
No provisions for oversizing	Variance form for oversizing with proof of purchase or installation
Formal agreement	No agreement, qualify upon interconnection
Residential 3 tier rate	Residential time of use rate
Commercial and Industrial Rates	No change
Production meter required	Production meter optional

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PROPOSED SELF-GENERATION PROGRAM (CONT.)

Current NEM Program	Proposed Self-Generation Program
Net billing- energy delivered to customer and excess energy received by RPU netted prior to billing	Bi-directional billing- energy delivered billed at applicable rate and excess energy received by RPU compensated at avoided cost of energy
Annual settlement and compensation for surplus energy	Monthly settlement
Net surplus energy compensation at RPU's renewable cost of energy - \$0.0730 per kWh	Energy sent back to the grid no longer nets at the retail rate with surplus energy being compensated annually.
Nets energy at the retail rate. Any excess banked energy at the end of the year is compensated at the net surplus energy compensation rate.	Compensation for energy received by RPU at avoided cost of energy - ~\$0.0722 per kWh. Based on time of day, if applicable, according to customer's rate schedule.
Eligible for program revisions after 32 MW	Program cap at 64 MW including current NEM program interconnections



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UTILITY PROGRAMS

Many Publicly-Owned Electric Utilities in California have transitioned to new programs:

Utility	Bidirectional Billing	Buy Back Rate = Avoided Cost of Energy	Method ACOE Applied
RPU Self-Generation	Yes	Yes	TOU (if rate schedule is time differentiated)
Anaheim	Yes	Yes	TOU
Azusa	Yes	Yes	TOU
Palo Alto	Yes	Yes	Non-TOU
Redding	Yes	Yes	Non-TOU
Turlock Irrigation District	Yes	Yes	TOU
Lodi	Yes	Yes	Non-TOU
Shasta Lake	Yes	Yes	Non-TOU
Roseville	Yes	Yes	Non-TOU
Imperial Irrigation District	Yes	Yes	TOU

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PROPOSED TRANSITION

1. Close current NEM program as of November 1, 2022
 - a. Customers must receive Permit Completion no later than October 31, 2022.
2. Current NEM program customers remain on current NEM program until they no longer receive service at the premise, increase the original renewable generation facility capacity by more than 25%, or install a new self-generation facility at the premise.

Note: The current NEM program agreement does not transfer to a new customer



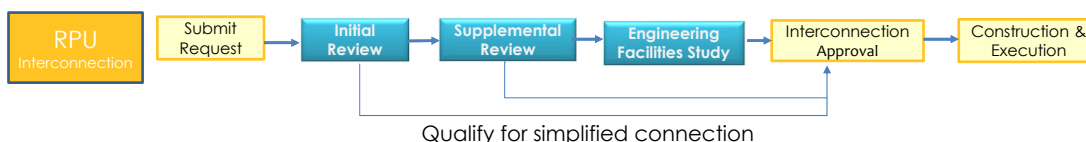
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ELECTRIC RULE 22

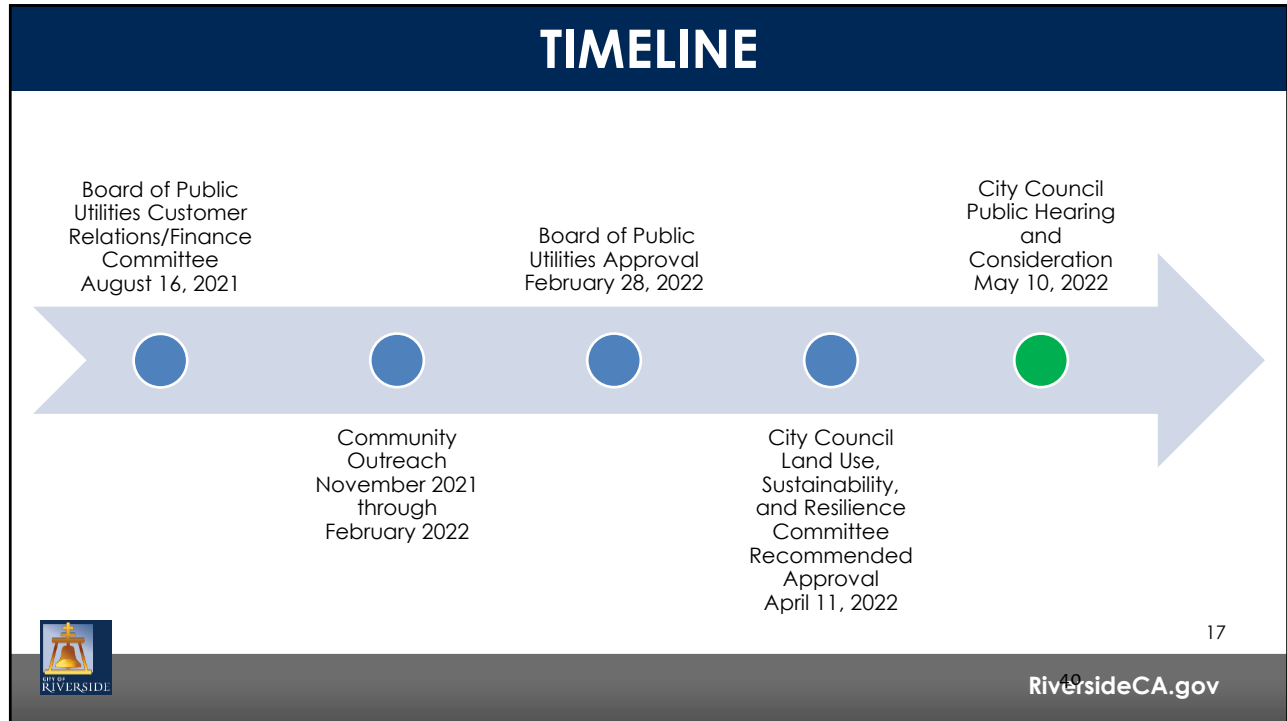
1. Electric Rule 22 "Distributed Generation Facilities Interconnection"
 - a. Rule for the interconnection, operating and metering requirements for generation facilities to be connected to RPU's distribution system.
2. Revised Electric Rule 22 to address the Self-Generation Program
 - a. 5 MW maximum generation facility rating to participate in the Self-Generation Program with a limit of 1.0 MW maximum export.



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RECOMMENDATIONS

That the City Council:

1. Conduct a public hearing to receive public input related to the proposed changes to Schedule NEM, "Net Energy Metering for Renewable Electrical Generation Facilities", Electric Rule 22 "Distributed Generation Facilities Interconnection", and the proposed Schedule Self-Gen, "Self-Generation Program for Renewable Electrical Generation Facilities"; and
2. Adopt a resolution approving the changes to Schedule NEM, "Net Energy Metering for Renewable Electrical Generation Facilities", Electric Rule 22 "Distributed Generation Facilities Interconnection", and the proposed Schedule Self-Gen, "Self-Generation Program for Renewable Electrical Generation Facilities".



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