



HEAT PUMP REBATE PROGRAM ENHANCEMENT

Riverside Public Utilities Department

City Council
June 25, 2024

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BACKGROUND

1. On December 7, 1999, City Council approved the Air Conditioning/Heat Pump Rebate Program
2. On July 1, 2010, the combined Air Conditioning/ Heat Pump Rebate Program guidelines were revised
3. Current dual Air Conditioning/ Heat Pump Rebates offered for residential customers

EQUIPMENT	SEER*	INCENTIVE
Packaged A/C	15.2 SEER* to 15.9 SEER	\$150 per ton
Packaged A/C	16 SEER or greater	\$250 per ton
Heat Pump	15.2 SEER to 15.9 SEER	\$150 per ton
Heat Pump	16 SEER or greater	\$250 per ton

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PROGRAM PARTICIPATION RATES

- Historically both programs have been included in the same budget, separated by SEER ratings.
- Average annual participation in the current combined Air Conditioning/Heat Pump Program is 300 customers.
- The Program provides energy efficiency savings, on average 127,000 kWh per year.

RESIDENTIAL PARTICIPATION			
FISCAL YEAR	PARTICIPANTS	COST	KWH SAVINGS
FY 14/15	201	\$135,525.00	84,418.50
FY 15/16	203	\$188,337.50	87,755.78
FY 16/17	281	\$269,874.77	118,020.00
FY 17/18	330	\$320,761.70	137,625.00
FY 18/19	328	\$324,024.75	136,073.00
FY 19/20	357	\$337,025.00	141,890.75
FY 20/21	417	\$381,325.00	160,274.51
FY 21/22	372	\$371,525.00	149,200.03
FY 22/23	314	\$307,412.50	124,075.59
FY 23/24 <i>*(Jul. 2023- Dec. 2023)</i>	138	\$130,437.50	53,327.05
TOTALS	2,941	\$2,766,248.72	1,192,660.21



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DISCUSSION

- The California Energy Commission has proposed guidelines to begin in 2026 that require new residential construction and replacement of HVAC units to be converted to heat pumps.
- Modern heat pumps can reduce electricity use for heating by approximately 65% compared to electric resistance heating such as furnaces and baseboard heaters.
- High-efficiency heat pumps can also dehumidify more effectively than standard central air conditioners, resulting in less energy usage and better cooling in summer months.



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AIR CONDITIONING REBATE PROGRAM

1. Existing Air Conditioning program remains unchanged.
2. Benefits customers who cannot install heat pump technology.
3. Program realizes valuable energy efficiency and cost savings.

EQUIPMENT	SEER*	INCENTIVE
Packaged A/C	15.2 SEER* to 15.9 SEER	\$150 per ton
Packaged A/C	16 SEER or greater	\$250 per ton

*Seasonal Energy Efficiency Ratio



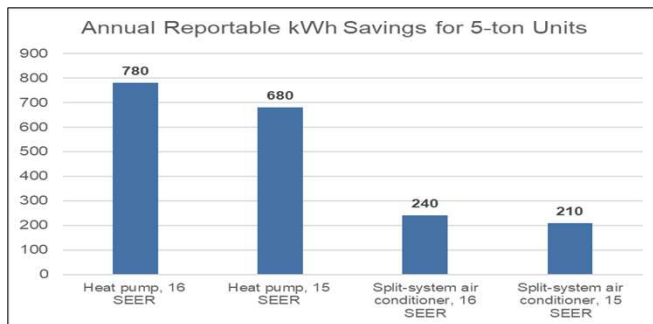
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HEAT PUMP TECHNOLOGY

Heat pumps provide significantly better kWh savings when compared to traditional air-conditioner units with the same SEER.



Measure Name	Annual kWh	Measure Life	Lifetime kWh Savings 5-ton unit
Heat pump 16 SEER	156	15 years	11,700
Heat pump 15 SEER	136	15 years	10,200



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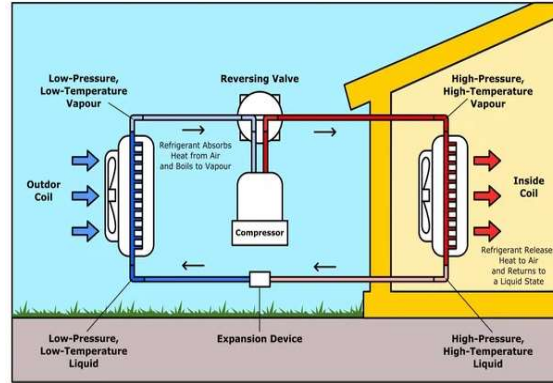
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HEAT PUMP TECHNOLOGY

Benefits of modern heat pumps:

1. Offer an energy-efficient alternative to furnaces and air conditioners.
2. Well-suited for the local climate.
3. Use electricity and a heat exchanger to transfer heating or cooling from one location to another.

Air Source Heat Pumps Heating Cycle



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PROPOSED HEAT PUMP REBATE ENHANCEMENT

1. Heat pump technology is more expensive than traditional air-conditioners.
2. Incentive level set to encourage greater adoption of heat pumps.
3. Similar programs offered by other municipal utilities:

Agency	Rebate
Anaheim Public Utilities	\$400 per ton
Azusa	up to \$2,000
Banning	\$600 per ton
Burbank	up to \$3,000
Imperial Irrigation District	\$400 per ton
LA Department of Water and Power	up to \$1,200
Sacramento Municipal Utilities District	up to \$3,500

4. Proposed increase incentive level from **\$150/\$250 per ton to \$750 per ton.**



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STRATEGIC PLAN ALIGNMENT



Strategic Priority 4 – Environmental Stewardship

Program deliverables will focus on helping customers maximize energy efficiency practices and support the Priority goals of championing proactive and equitable climate solutions based in science to ensure clean air, safe water, a vibrant natural world and a resilient green new economy for current and future generations



Community Trust



Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation



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RECOMMENDATION

That the City Council approve a program enhancement to the current residential Air Conditioning/Heat Pump Rebate Program by creating a dedicated rebate program for Heat Pumps and increasing the heat pump incentive to \$750 per ton, with a total annual heat pump rebate program limit of \$375,000



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