Silicon Valley Power
2024-2025 Data Center Program Rebate Application

Contact Information

Contact Name _____ Phone _____

Company _____

Email address _____

Customer/Facility Information

Company Name _____

Address _____

City, State **SANTA CLARA, CA** Zip Code _____

Federal Tax ID# _____

Name on Account _____

Address to Which Rebate Check Should be Mailed

Attach payment authorization on letterhead if check is to be made payable to a third party

Make Check Payable to:

Company Name _____

Mailing Address _____

City, State, Zip _____

Attention _____ Phone _____

Tax Status (check one)

- ❑ Sole Proprietor
- ❑ Corporation ❑ Partnership
- ❑ Government ❑ Not-For-Profit

_____
SVP Account Number

_____
Square footage | Year Constructed

Building Use (as % of bldg area)

IT / Telecom
Servers _____ %
Office _____ %
Warehouse _____ %

Mech/Elec Rm _____ %

Other _____ %
100 %

_____
SVP Rebate Number

Customer Agreement

A. As a qualified Silicon Valley Power (SVP) Customer, I agree to indemnify the City of Santa Clara, its City Council, commissions, officers, employees, volunteers, Strategic Allies, and agents from any claim, injury, liability, loss, cost, and/or expense or damage, including all costs and reasonable attorney's fees in providing a defense to any claim arising from this Rebate.

B. I certify that I will purchase and install the indicated energy saving equipment or implement the indicated energy efficiency measures during the current SVP program year. I will provide a copy of the itemized proof of purchase and installation.

C. I agree to verification inspections by SVP representatives or its third-party contractors of both the sales transaction and product or measure installation.

D. I certify that the information provided on this rebate application is true and correct.

E. I understand that the installed equipment or measures must be operational and producing energy savings for a minimum of five (5) years after the project is completed. If the equipment or measures are removed or otherwise not producing energy savings, I understand that I may have to return a prorated amount of the rebate funds received.

F. I certify that I have not received any other rebates for the equipment or measures indicated on this rebate application.

G. All pages of this Application are included in and are part of this Agreement. This Application embodies the entire agreement between SVP and the Customer.

H. Silicon Valley Power's Public Benefit Programs operate under a July-June annual budget calendar. Rebate funding is limited by the annual budget. Rebate applications are accepted on a first come, first served basis until the rebate budget is expended.

I. Customer is limited to receiving a maximum of $1,500,000 of rebate funds in the 2024-2025 program year (July 1, 2024, through June 30, 2025). This includes incentives received through all SVP programs. After June 30, 2025, the rebate funds maximum is subject to change. Projects approved in the 2024-2025 program year that are completed after June 30, 2025, will be counted toward the rebate funds maximum in effect for that year.

J. Customer is limited to receiving a maximum of $1,500,000 of rebate funds for similar measures installed at a single facility (stand-alone building). This limitation applies for a period of five (5) years.

K. Rebate payment of $2500 or less made to the Customer will be issue as a bill credit.

I have read and understand this Application, including the Program Rules and Eligibility Requirements, and I agree with all of its provisions.

_____ Customer Name (Please Print)

_____ Customer Signature

_____ Date

_____ Title

_____ Email Address

_____ Phone

Silicon Valley Power
2024-2025 Data Center Program Rebate Application

1. Initial Project Energy Savings and Rebate Estimate

Annual Energy Savings (kWh) Estimate	Peak Demand Reduction (kW) Estimate	Design IT Server Load (kW)

Project Status:	Percent of Design IT Server Load Operating	Incentive Rate ($/kWh)	Energy Savings (kWh) Rebate Estimate	Potential Rebate Amount
3 months after project completion	%	$0.03/kWh		$
End of Year 1	%	$0.03/kWh		$
End of Year 2	%	$0.03/kWh		$
End of Year 3	%	$0.03/kWh		$
End of Year 4	%	$0.03/kWh		$
			Total Potential Rebate Amount	$
			Total Project Cost	$
			Total CO_2 lbs Reduction	

Notes

a) The Annual Energy Savings Estimate and Peak Demand Reduction Estimate are the potential energy savings and peak demand reduction at design IT Server load documented in the project energy savings calculations.
b) Project Status indicates the point in time that the project's energy savings performance will be evaluated.
c) Percent of Design IT Server Load Operating is the operating IT server electric power (kW) divided by the design IT server electric power (kW).
d) The Potential Rebate Amount is the Annual Energy Savings Estimate. To calculate the Potential Rebate Amount for each Project Status time period, multiply the Annual Energy Savings Estimate by the Percent of Design IT Server Load Operating then multiply by the Incentive Rate.
e) To determine CO_2 lbs reduction, multiply Total Annual kWh Savings by 0.562.
f) Approved Annual kWh Savings are based upon SVP's review of submitted information and subject to SVP's analysis of the project. SVP will pay the rebate based upon energy savings that meets an acceptable level of risk and uncertainty, as determined by SVP. A higher perceived risk will result in a lower approved energy savings level.
g) Final rebate amount will be based on actual energy savings achieved and documented in project measurement and verification report.
h) Peak demand reduction: the average hourly demand (kW) reduction from 2pm to 5pm for the three hottest calendar year days (September 1-3, excepting holidays and weekends, then the three days following are used).

2. Rebate Payment Schedule

Upon project approval, SVP will establish a rebate payment plan, subject to the conditions specified in this agreement.

2.1. **Payment Schedule for kWh Savings** and Peak kW Reduction (to be completed by SVP)

Savings Rate (per verified kWh saved)	$ 0.03

	Verified Peak Demand Reduction (kW)	**Verified Savings (kWh)**
First Rebate Payment 3 months after project completion		

	Verified Additional Peak Demand Reduction (kW)	**Verified Additional Savings (kWh)**	**Verified Cumulative Savings (kWh)**	**Annual CO_2 lbs. Reduction**
Rebate Payment #2 One year after project completion				
Rebate Payment #3 Two years after project completion				
Rebate Payment #4 Three years after project completion				
Rebate Payment #5 Four years after project completion				

2.2 **Rebate Payment Schedule** (to be completed by SVP)

Maximum Total Rebate [2.4]	$

First Rebate Payment	$	**Cumulative Rebate**
Rebate Payment #2	$	$
Rebate Payment #3	$	$
Rebate Payment #4	$	$
Rebate Payment #5	$	$

2.2. Verified Savings and Peak Demand Reduction are the final energy savings and Peak Demand Reduction approved by SVP at the end of each performance period. Verified Savings and Peak Demand Reduction are adjusted to account for the percent of design IT load operating at the time of performance evaluation - see Section 4 Measurement and Verification Requirements for how IT load will be verified. Verified Savings may be further adjusted if actual operating conditions are found to be less efficient than the submitted design conditions.

2.3. The Rebate Payment for each payment period may be limited by the yearly maximum rebate cap per Customer. If the Rebate Payment amount causes the Customer's rebate payments for a single year to exceed the annual rebate cap, the Rebate Payment will be reduced or eliminated and will not roll over to the next payment period. Should one or more of the Rebate Payments be reduced by the yearly rebate cap per Customer, the project Maximum Total Incentive Payment will also be reduced.

2.4. Maximum Total Rebate Payment is equal to the lesser of $1,500,000, 120% of the total Potential Rebate Amount or 65% of the Total Measure Cost.

3. Program Rules and Eligibility Requirements

3.1. The Data Center Program Rebate Application must be pre-approved by SVP prior to the implementation or installation of energy-efficient measures, systems, or equipment. SVP pre-approval consists of written confirmation from SVP to the SVP Customer. The pre-approval will define the approved rebate amount and establish the rebate deadline for the final post-installation inspection.

3.2. To help ensure the project will meet all program eligibility requirements, the Customer should consult with an SVP energy engineer during the design stage of the project.

3.3. As applicable, SVP will conduct pre-installation site inspections to confirm existing conditions and rebate eligibility.

3.4. SVP will conduct post-installation project inspections to confirm energy-efficient measures are installed and operating in a manner that saves energy.

3.5. The Data Center Program is designed specifically for facilities, or spaces within facilities whose primary function is to house Information Technology (IT) or telecommunication (Telcom) computer equipment. Eligible energy efficiency related projects must save energy at a facility located in SVP's service territory. Project rebate eligibility is up to the sole discretion of SVP.

3.6. For new construction or major renovation projects[1], the total IT connected load must be equal to or greater than 350 kW, or the IT cooling load must be equal to or greater than 100 tons. If the project does not meet the size threshold, it may be eligible for funding under SVP's Customer Directed Rebate (CDR) Program.

3.7. For retrofit projects, the total IT connected load – before or after the proposed retrofit – must be equal to or greater than 350 kW, or the IT cooling load – before or after the proposed retrofit – must be equal to or greater than 100 tons. If the project does not meet the size threshold, it may be eligible for funding under SVP's CDR Program.

3.8. Projects that are not eligible for funding under this program include:

3.8.1. Projects that are installed and completed without SVP pre-approval.

3.8.2. Virtualization or consolidation of IT servers. In general, no IT measure savings are allowed unless specifically approved by SVP.

3.8.3. Equipment that is not permanently installed or can be easily removed.

3.8.4. Self-generation, cogeneration, and fuel switching.

3.8.5. Power factor correction equipment.

3.8.6. Projects that do not save energy in a demonstrable manner.

3.8.7. Projects that save energy based on behavior (i.e., conservation) only.

3.8.8. Projects that do not continue to produce energy savings for at least five years.

3.8.9. Measures that are eligible under other SVP programs (SVP will make final determination of which program is most appropriate for each proposed measure).

New Construction Data Centers

3.9. The standard baseline design requirements for new construction projects are as follows:

3.9.1. Economizer cooling: Consistent with the 2022 Title 24 regulations, the cooling system serving the data center shall include either:

3.9.1.1. An integrated air economizer capable of providing partial cooling even when additional mechanical cooling is required and capable of providing 100 percent of the expected system cooling load at 65°F to 80.6°F supply air temperature at outside air temperatures of 65°F dry-bulb and below

[1] Major Renovation is defined as an existing facility, or space within a facility, in which the floor space is increased by more than 50% or more than 50% of cooling capacity is added.

or 50°F wet-bulb and below, and be equipped with a fault detection and diagnostic system as specified by Section 120.2(i) of the 2022 Title 24 building energy code; or

3.9.1.2. An integrated water economizer capable of providing partial cooling even when additional mechanical cooling is required and capable of providing 100 percent of the expected system cooling load at 65°F to 80.6°F supply air temperature at outside air temperatures of 50°F dry-bulb and below or 45°F wet-bulb and below.

3.9.1.3. If an airside economizer is proposed, the baseline design should have an airside economizer. Otherwise, the baseline design should have a waterside economizer.

3.9.2. HVAC equipment meets all applicable local, state, and federal building codes and appliance standards.

3.9.3. No humidification controls.

3.9.4. Supply and return air temperatures: Supply air temperature (SAT) of 60°F, with no less than a 20°F difference between supply and return air temperatures. The room setpoint will be 80°F.

3.9.5. Consistent with 2022 Title 24 regulations and a review of the current industry available equipment, the supply air fan efficiency during peak IT load operation must be equal to or less than 22 watts per kBtuh of sensible cooling delivered.

3.9.6. Consistent with 2022 Title 24 regulations, supply air fan controls must meet the requirements set by Section 140.4(m).

3.9.7. HVAC system over-sizing and redundancy: certain limitations may apply.

3.9.8. HVAC annual energy use estimate: The estimated cooling energy use must be based on the actual heat release of the proposed IT servers. As an alternative, the estimated cooling energy load can be assumed to be 62.5% of the total connected IT load downstream of the UPS.

3.9.9. Consistent with 2022 Title 24 regulations, air cooled chillers must meet the minimum requirements as listed in Section 110.2, Table 110.2-D.

3.9.10. Water cooled chiller annual plant efficiency, including all pumps, cooling tower fans, and ancillary power: 0.67 kW/ton for a single chiller plant, or 0.62 kW/ton for a multiple chiller plant. Alternatively, the annual energy use (or annual plant efficiency) can be determined by modeling the selected equipment efficiency ratings, system design, and plant energy management control strategies.

3.9.11. IT Equipment: same equipment for both standard and proposed design

3.9.12. Power Usage Effectiveness (PUE) is defined as:

$$PUE = \frac{Total\ Facility\ Energy}{IT\ Equipment\ Energy}$$

The following table will be used as the baseline for all new construction data centers. Measurements from power meters and PDUs must be recorded and provided in an Excel spreadsheet.

Facility IT Capacity (MW)	Weighted Average PUE
≤0.099	1.67
0.1-0.999	1.66
1-2.99	1.63
3-4.99	1.60
5-9.99	1.54
10-19.99	1.46
20-29.99	1.45
≥30	1.45

Retrofit Data Centers

3.10. The standard baseline design for retrofit projects are as follows:

3.10.1. Consistent with 2022 Title 24 regulations, integrated air or waterside economizer as required by Section 141.1.

3.10.2. HVAC equipment meets all applicable local, state, and federal building codes and appliance standards.

3.10.3. Supply and return air temperatures: same as existing system.

3.10.4. CRAC/H units: model same type and size as existing, with unit efficiencies meeting current standards.

3.10.5. HVAC system over-sizing and redundancy: certain limitations may apply.

3.10.6. HVAC annual energy use estimate: Estimate annual energy consumption using the measured power consumption of the cooling equipment (minimum four weeks of measured data). If estimating the energy use of a system expansion (increased cooling load), the estimated cooling energy use must be based on the actual heat release of the proposed IT servers. As an alternative, the estimated cooling energy load can be assumed to be 62.5% of the total connected IT load downstream of the UPS.

3.10.7. Chiller plant efficiency, including all pumps, cooling tower fans, and ancillary power: The annual energy use (or annual plant efficiency) can be determined by modeling the existing equipment efficiency ratings, system design, and plant energy management control strategies. Alternatively, for water-cooled chillers, assume 0.71 kW/ton for a single chiller plant, or 0.67 for a multiple chiller plant, and for air cooled chillers, assume 0.95 kW/ton for a single chiller plant, or 0.87 kW/ton for a multiple chiller plant.

3.10.8. IT Equipment: same equipment for both standard and proposed design.

Project Description and Savings Calculation

3.11. A project description must be submitted to and approved by SVP. The project narrative must clearly describe the project and explain how energy savings will be achieved. The project description will include a summary of both the standard baseline design and the proposed project design. A summary table will provide a side-by-side comparison of the standard baseline design and the key energy-saving features of the proposed project. If needed, SVP will provide the Customer a sample table showing how this information can best be provided.

3.12. Energy savings estimates must be submitted to and approved by SVP.

3.12.1. The savings estimates must follow generally accepted engineering principles and industry standards.

3.12.2. All key assumptions used in the savings estimates must be listed.

3.12.3. The Power Usage Effectiveness (PUE) will be used to determine the overall efficiency of a data center, for both the current baseline and post-retrofit condition. PUE is defined as:

$$PUE = \frac{Total\ Facility\ Energy}{IT\ Equipment\ Energy}$$

This metric will be used to help validate the saving calculations. Measurements from power meters and PDUs must be recorded and provided in an Excel spreadsheet.

3.12.4. If a spreadsheet model is used, the savings estimate methodology and calculations must be well organized and easy to follow. Equations in spreadsheet cells must be summarized and each equation constant or variable defined. Any external references or sources must be identified. For complex models, a narrative must accompany the model to guide SVP through the analysis.

3.12.5. If energy simulation software is used, the baseline and proposed design inputs must be clearly documented in the summary table. In addition, the model input files and detailed simulation output files generated by the software must also be provided.

3.12.6. SVP, at its own discretion, may use its own engineering judgment and calculations to determine project or measure energy savings.

Project Cost Documentation

3.13 Project measure cost documentation must be submitted to and approved by SVP. Project measure costs are defined as the incremental costs that are directly related to the project's energy efficiency improvements. For new construction data centers, the incremental cost is the cost of the efficient cooling system minus the cost of the theoretical baseline system. Customer must submit a contractor's estimate for the parts and labor associated with the theoretical baseline. For projects that are larger than the scope of the measure, detailed cost documentation to the measure must be provided. SVP reserves the right to make the final decision on which project costs are considered measure costs.

4. Measurement and Verification Plan

4.1. For each measure, a Measurement and Verification (M&V) plan must be submitted. An SVP energy engineer will assist the Customer in developing an appropriate M&V plan that substantiates the project's estimated energy savings.

4.2. To verify energy savings, the M&V plan may require pre- and post-project monitoring. The Efficiency Valuation Organization (EVO) provides a publicly accessible library of best practices with regard to measurement and verification techniques. The International Performance Measurement & Verification Protocol (IPMVP) can be downloaded at www.evo-world.org.

4.3. SVP will make the final determination on what constitutes an acceptable project M&V plan. SVP may accept the customer-provided plan, accept it with revisions, or propose an alternative M&V plan.

5. Measurement and Verification Report

5.1. Three months after the project is completed, a Measurement and Verification report (M&V report) must be submitted to and approved by SVP. The report must document the final operating conditions and describe any changes made to the original design.

5.2. The report must provide the final energy savings estimate and indicate the percent of design IT server load currently operating. Trend or instantaneous IT power data must be provided to verify the IT server load currently operating.

5.3. The report must include a minimum of three weeks of supply and return air temperature trend data with an explanation of the results if they are different from design.

5.4. As a prerequisite for rebate payments, within 30 days of the end of each performance period, the report must be updated and submitted to SVP.