Silicon Valley Power
2014-2015 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 _____

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 $500,000 of rebate funds in a single program year. This includes incentives received through all SVP programs.

J. Customer is limited to receiving a maximum of $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.

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

_____ _____
Customer Signature Date

_____ _____
Customer Name (Please Print) Title

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1. Initial Project Energy Savings and Rebate Estimate

Annual Energy Savings Estimate (kWh)	Peak Demand Reduction (kW)

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

Notes

a) Annual Energy Savings Estimate is the potential energy savings 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) To estimate Potential Rebate Amount at 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 0.65868.
f) Approved energy savings estimates are based upon SVP's review of submitted information and subject to SVP's analysis of the project. SVP will pay rebate based upon energy savings level 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.

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** (to be completed by SVP)

Payment Rate	$ 0.03	per verified kWh saved		
Maximum Total Incentive Payment	$		**Verified Savings (kWh)**	**Rebate Payment**
First Rebate Payment	3 months after project completion	Subject to Section 4 - Measurement & Verification		
Rebate Payment #2	One year after project completion	Subject to Section 4- Measurement & Verification		
Rebate Payment #3	Two years after project completion	Subject to Section 4- Measurement & Verification		
Rebate Payment #4	Three years after project completion	Subject to Section 4- Measurement & Verification		
Rebate Payment #5	Four years after project completion	Subject to Section 4- Measurement & Verification		

2.2. Verified Savings are the final energy savings approved by SVP at the end of each performance period. Verified Savings 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 Customer yearly maximum rebate amount. If the Rebate Payment amount causes the Customer's rebate payments for a single year to exceed $500,000, then 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 Customer yearly rebate limit, then the project Maximum Total Incentive Payment will also be reduced.

2.4. Maximum Total Incentive Payment is equal to the lesser of 120% of the total Potential Rebate Amount or 65% of the Total Project 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 timeline 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 efficiency program representative 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).

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

3.9.1. Economizer cooling: either air or water-cooled economizers, depending upon the design of the HVAC system.

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. Chiller Type: chillers sizes less than 150 tons, assume air cooled. Chiller sizes equal to or greater than 150 tons, assume water cooled.

3.9.5. Supply and return air temperatures: Supply air temperature (SAT) between 55°F and 65°F, with no less than a 15°F difference between supply and return air temperatures.

3.9.6. Consistent with 2013 Title 24 regulations, supply air fan efficiency during peak IT load operation must be equal to or less than 27 watts per kbtuh of sensible cooling delivered.

3.9.7. Consistent with 2013 Title 24 regulations, supply air fans must have variable or two-speed control capable of achieving 50% design wattage at 66% fan speed.

3.9.8. Space cooling loads less than 150 tons: assume computer room air conditioners (CRAC) with direct expansion (DX) cooling coils.

3.9.9. Space cooling loads equal to or greater than 150 tons: assume computer room air handlers (CRAH) with chilled water coils.

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

3.9.11. 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 65% of the total connected IT load downstream of the UPS.

[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.

3.9.12. 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 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.

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

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

3.10.1. No economizer cooling, unless already existing or required by Title 24.

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 65% 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.

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. 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 used must be identified. For complex models, a narrative must accompany the model to guide SVP through the analysis.

3.12.4. 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.

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

3.13. Project measure cost documentation must be submitted to and approved by SVP. The project costs are defined as the incremental costs that are directly related to the energy efficiency improvements made to the project. 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 specialist will assist the Customer in developing an appropriate M&V plan that substantiates the project's estimated energy savings.

4.2. In order 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 following performance period, the report must be updated and submitted to SVP. The updated report must include trend or instantaneous IT power data over a three week period to verify the percent of design IT server load operating and to confirm design supply air temperatures are being maintained.