

INSTRUCTION FOR QUALIFYING AS A PDP PROVIDER FOR THE CALIFORNIA SOLAR INITIATIVE THERMAL PROGRAM

The purpose of this section is to outline the required process and qualifications to be approved as a PDP provider for the CSI-Thermal Program. This section also details the data reporting requirements (format, delivery method) and schedule for PBI payments. The PDP provider may also provide CPM provider services. All PDP providers must meet the requirements established herein in addition to the requirements set forth in the CSI-Thermal Program Handbook.

BACKGROUND AND REQUIREMENTS

Customers participating in the CSI-Thermal Program's PBI payment process are required to install performance meters to determine the energy delivered by their solar thermal system. This data must be read and communicated to the PA by a third-party PDP provider. This document provides information and instructions for providers wishing to qualify to provide PDP provider services.

The following are the PDP provider's primary responsibilities:

- Manage meter reading and data retrieval schedule
- Read and retrieve performance meter data
- Post data to www.csithermal.com on a consistent and reliable schedule, per PA requirements.
- Validate performance data prior to submitting
- Calculate quarterly energy delivered by the solar thermal system for PBI payment
- Format data using the CSI-Thermal program approved protocol
- Troubleshoot and resolve communications issues
- Store data in accordance with program requirements
- Make historical performance data available to PAs as requested
- Provide technical support to PAs as well as customer support
- Communicate meter/device changes to the PA
- Provide disaster recovery and data backup services as requested by the PAs
- Manage data on PDP server
- Ensure confidentiality of customer information and performance data
- Possess technical expertise and capability
- Comply with all State and Federal laws
- Existing approved PDPs will be required to meet all new PBI requirements

PDP Provider Task Requirements

Data Format

Data must conform to the specific program requirements as outlined in Appendix F. The PBI data reports must include 15-minute interval (as defined in Appendix F, Section F.5, Time Granularity of Acquired Data). All PBI data reports must be formatted using csv unless otherwise specified. Required fields can be found in Appendix F, Section F.3, Solar Performance Data. For systems with multiple meters, the PDP will be required to submit meter level and aggregated system data. The File Format Specification can be found at www.csithermal.com.

Data Validation

The PDP provider must validate all data prior to uploading it to www.csithermal.com. The following data validation rules shall apply:

- Time Check of Meter Reading Device/System (all)
- Meter Identification Check (all)
- Time Check of Meter (all)
- Pulse Overflow Check (if applicable to metering system)
- Test Mode Check (if applicable to metering system)
- Sum Check

Payment Validation, Audits, and Measurement and Evaluation

The PA may, at their discretion, perform validations on performance data prior to issuing payments to customers participating in this program. The validations will compare actual first year performance data with the expected performance as estimated based on documentation submitted on the Host Customer's approved incentive claim form. If payment falls outside expected ranges for the year, the incentive payment will be withheld until the PA determines to its satisfaction the reason for the discrepancy.

PBI rebate payments for each month will be based on that month's aggregated energy generation. Nevertheless, PDP providers are required to submit 15-minute interval production data, which will be used for studies of program effectiveness and impact. If the monthly report is found to lack some 15-minute interval production data, the PDP provider shall explain to the PA why this is so. If the PA finds the explanation insufficient or if the amount of 15-minute interval production data is insufficient, the PA shall be allowed, at its discretion, to disallow part or all of that month's PBI payment.

The PDP provider will work with the Host Customer to resolve any discrepancies identified by the PA which may include testing and/or recalibrating the meter/devices if deemed necessary. The PAs are not responsible for the costs associated with investigating and resolving any such discrepancies (i.e., testing, meter replacement hardware, installation labor).

The PA will also perform random audits of PDP provider data to ensure accuracy and compliance with the requirements outlined in this document. Any PDP provider found to be in violation of any of these requirements will be subject to the penalties outlined later in this document. The PA, via the local utility or its designated contractor may, at its discretion, inspect and test the performance meter or install separate metering in order to check meter accuracy, verify system performance, or confirm the veracity of monitoring and reporting services.

Any additional metering installed by or at the request of the PA will be paid for by the PA. However, in the event metering is installed during the course of an audit or investigation initiated by the PA where cheating or tampering is suspected and confirmed, the System Owner will be charged for these costs.

Data Retention

Raw and PDP provider validated interval and cumulative monthly data must be retained for a period of five years from the data collection end date. The PBI data collection time period is two years (24 consecutive months). See Appendix F, Section F.8 of the CSI-Thermal Handbook for more details. The PDP provider must be prepared to post historical interval data at the PAs request. The PA audit will include raw interval data which is to be maintained by the PDP provider for comparison with validated interval data transmitted to the database. The PDP provider is also responsible for providing backup and disaster recovery services for 100 percent of the data.

Technical and Customer Support

The PDP provider must provide a technical support number to the PA for use during normal business hours (8:00 a.m. to 5:00 p.m. Pacific Standard time, Monday through Friday, except holidays) to help resolve any data availability, format or corruption issues, communication problems, server access problems, or other technical issues. Within those normal business hours, the PDP provider must respond to PA requests within two business days with a status report and plan for correcting the issues. The PDP provider must also provide a customer support number to respond to customer inquiries within two business days from the initial customer contact. PAs will have the discretion to set deadlines for the resolution of data transfer problems/issues.

PDP Provider Performance Exemptions

The PDP provider is responsible for meeting the above noted program requirements and for consistently posting performance data in accordance with the PAs scheduling and data posting requirements. At its discretion, the PA may grant reasonable allowances for occasional issues or technical problems, as well as for large catastrophic events such as earthquakes.

In the event of such catastrophic event resulting in an energy delivered interruption; OR in the event of metering or communications equipment failure where the data is irretrievable by the PDP provider at no fault of the customer AND it can be determined that the customer's solar thermal equipment was still operating, the PA may extend the PBI incentive payment period beyond the established timeframes otherwise specified by the incentive program Handbook. The PBI incentive payment extension period

will be equivalent to the same period the system energy production data is unavailable. To submit a Data Report relative to missing data, the PDP provider will resubmit the respective Data Report, thereby replacing the previous incomplete report with a complete quarter of data.

PDP Provider Non-Performance

The PA will not issue incentive payments to customers based on estimated data from the PDP provider, nor will the PA estimate incentive payments under any circumstances. It is the PDP provider's responsibility to ensure timely (within 5 days after the end of the specified reporting period) and accurate posting of validated performance data so customer incentive payments can be made.

The following conditions may result in penalties, suspension of activity, or revocation of PDP provider approval from the PA:

- PBI rebate payments for each month will be based on that month's aggregated energy generation. Nevertheless, PDP providers are required to submit 15-minute interval production data, which will be used for studies of program effectiveness and impact. If the monthly report is found to lack some 15-minute interval production data, the PDP provider shall explain to the PA why this is so. If the PA finds the explanation insufficient or if the amount of 15-minute interval production data is insufficient, the PA shall be allowed, at its discretion, to disallow part or all of that month's PBI payment.
- Data not posted by specified date (10 percent of accounts serviced by PDP provider over a one quarter period are late).
- No data received for incentive period (per customer: no data posted 2 times consecutively OR 2 times in 9 months; and/or per PDP provider: no data posted for 10 percent of accounts serviced by PDP provider). Submittal of corrected data or previously missing quarterly data must be received in cycle sequence.
- Data not validated in accordance with program requirements over the course of the CSI-Thermal Program. (1 time)
- Estimated data posted instead of actual data. (1 time)
- Meter change information not reported within 30 days of the meter change. (3 times within 6 months)
- If an audit or investigation shows a discrepancy of more than 5 percent between the PDP provider reported data and PA check meter production data for one data report period. This discrepancy will trigger an audit schedule set by the PA for the PDP provider.

The PDP provider will be given reasonable opportunity to correct problems identified by the PA. The PA will work with the PDP provider to correct any such problems and avoid unnecessary delays in issuing incentive payments to customers, to the extent feasible. However, if the PDP provider fails to resolve any issues to the PAs satisfaction within 60 days which result in delays in incentive payments to customers, the following penalties may apply:

- If the problem is with a single or less than 20% of customer accounts served by the PDP provider, the PA will suspend PDP provider activity with just those affected customers. The affected customers will be notified that the PDP provider has been unable to resolve the specified issue within an acceptable timeframe and they will be given a 30 day grace period to select and engage with another PDP provider. The original PDP provider will be required to transfer all historical data to the newly selected PDP provider. An incentive payment will not be made until the customer provides a contract or similar document proving they are engaged with another PDP provider, but the customer's incentive payment period will be extended beyond the established period allowed under the applicable program rules to compensate for this interruption in data collection. If the customer fails to engage with and provide proof that they have contracted with a new PDP provider within the allowable grace period, the time between the grace period expiration date and the date the PA receive such proof will be deducted from the final payment amount.

If the problem is of a more serious nature as determined by the PA and continues over six months, or it affects more than 20% of customers served by the PDP provider, the PDP provider's approval will be revoked and all customers will be notified that they must select another PDP provider. As above, an incentive payment will not be made until the customer selects another PDP provider, but the customers' incentive payment period will be extended beyond the established payment period. The PDP provider will be eligible to reapply after six months upon demonstrating that they have successfully resolved all problems to the PAs satisfaction.

Unless the PDP provider's actions results in revocation, upon receipt of a notice from the PA with respect to the PDP provider's failure to provide the performance, the PDP provider must, as soon as reasonably practicable: (1) perform a root-cause analysis to identify the cause of such a failure; (2) provide the PA with a report detailing the cause of, and procedure for correcting such failure within 3 days of completion of such root-cause analysis; (3) implement such procedure after obtaining the respective PA approval of such procedure.

Criteria for a PDP Provider Appeals Process

Should the PDP provider disagree with a PA decision regarding a penalty, the PDP provider has the right to appeal to the CSI-Thermal Working Group for further consideration.

APPLICATION PROCESS

Application & Documentation

The PDP provider applicant completes the attached "Application to provide PDP Services" and provides all documentation in the attached checklist. Note that the PDP provider Applicant must submit an application to and successfully complete the data transfer test described later in this document to any of the four PAs.

The PAs will review the submitted documentation, determine if the PDP provider Applicant meets the program requirements and notify the PDP provider Applicant via email. The PA will review the application and respond to the PDP provider Applicant within 15 business days.

Data Transfer Test

Once the PA has reviewed and accepted the prospective PDP provider's application, they will contact the PDP provider to schedule a data transfer test. Upon approval of the test, the PDP provider is eligible to submit quarterly performance data for CSI-Thermal customers.

The PAs, at their discretion, may require that a data transfer test be completed for specific projects. The PA will inform the Applicant, customer, and PDP provider of the project-specific data transfer test upon approval of the incentive claim documents.

PDP Provider Approval Initial Audit Period

Upon PA approval of the required PDP provider application documentation, and successful completion of the PDP provider data test procedures, the PDP provider will be qualified to provide performance data to the PA for incentive payment. However, the PAs will audit the raw production data from each PDP provider's first data report for their first three customers for compliance with these PDP provider requirements. The PA will notify the PDP provider of noncompliance and will work to assist the PDP provider with resolving the issues.

Application to Provide PDP Provider Services

This application and the attached documents are to be used by Applicants for approval as a PDP provider. Please refer to the outline below to ensure your application includes all applicable documentation.

Company Name: _____ *

Primary Contact: _____

Address: _____ Address 2: _____ *

City: _____ * State: _____ * ZIP: _____ *

Phone: (____) ____ - ____ * Fax: (____) ____ - ____

Email: _____

Company Website: _____ *

*The above information is subject to public display upon approval of this application.

Technical Support Contact

Contact Name: _____

Phone: (____) ____ - ____ Email: _____

Hours of Operation (PST): _____ Days of Operation: _____

Customer Support Contact

Contact Name: _____

Phone: (____) ____ - ____ Email: _____

Hours of Operation (PST): _____ Days of Operation: _____

PDP Provider Application Outline

Section I: Application to Provide PDP Provider Services (above fields)

Section II: Company Background

- Company background (i.e. years in business, number of employees, general description, etc.)
- Meter data reading and reporting experience and capabilities, capacity, technology overview, IT capabilities, etc.

Section III: Data Format

Review the data format requirements in this section and initial beside each line item to indicate compliance.

Provider can and will provide data in csv format _____

All applicable data fields will be submitted _____

Provider is able to meet data privacy and protection requirements _____

Provider is able to meet monitoring systems remote communication requirements _____

Provider is able to monitor, trend, archive, & report fields listed in Appendix F, Table F1 _____

Provider is able to electronically submit performance data reports for each project through www.csithermal.com _____

Provider is able to record all required solar performance or output data points at a minimum of every 15 minutes _____

Provider is able to report performance data quarterly to the PAs _____

Provider is able to meet data retention and performance requirements _____

Provider is able to calculate Btu values only when there is established flow _____

Section IV: Data Validation

- Data validation procedures
- Process for retrieving missed reads

Section V: Data Retention

- Data retention plan
- Backup and recovery plans

Section VI: Data Communication and Security

- Data communication (frequency, scalability, types, troubleshooting, etc.)
- Data posting (data translation, formatting, firewall access, etc.)
- Hardware and software scalability plans
- Data confidentiality and security procedures

By signing this document, the Applicant agrees to comply with all program requirements including those described in the CSI-Thermal Program Handbook (signature must be someone with legal authority at the

PDP provider). Additionally, Applicant agrees to keep confidential all data received from the PA for testing. Information in this document will remain confidential.

Signature: _____ Date: _____

Printed Name: _____ Title: _____