

DSGS Option 3 Meter Data Specifications

Updated May 2025

1 Introduction

This specification document defines the required format for interval meter data submitted by Option 3 providers, effective beginning in program season 2025. The term “meter data” is used in a general sense in this document and refers to any interval data with energy values coming from an energy resource enrolled in DSGS Option 3. These devices are most commonly inverters tied to behind-the-meter battery storage devices. However, the same data format applies to Electric Vehicle Supply Equipment (EVSE) devices or other eligible devices or submeters. In the DSGS guidelines, meter data for Option 3 is also referred to as “Option 3 Performance Reports”. Data is required to be submitted each month. Only Option 3 meter data submitted as part of this monthly reporting will be used for final calculation of demonstrated capacity and incentives. No meter data can be submitted as part of the end-of-season claim process.

In 2024, a modified version of this format was supported. However, due to the new requirements for monthly data submission, the 2024 format can no longer be supported. Starting in 2025, Option 3 providers will have direct access to a portal for data upload, and the meter data files will only be accepted if they meet the requirements in this document. Error messages will be displayed at the time of upload with details on the formatting issue. If a file is not accepted by the portal due to a formatting issue, the provider must resubmit the corrected data.

This format is referred to as the DSGS Option 3 Olivine Interval Data (OID) format. Data must be tab-separated.

2 File content requirements

There are several basic requirements for meter data submitted for Option 3:

- **Separate files per UDC:** Starting in 2025, providers must separate the meter data files into distinct files based on the utility (UDC) territory of the sites/devices contained in them. For example, if a provider has enrolled sites in both SCE and PG&E, they need to submit data separately: one or more files for the sites in PG&E territory, and one or more files for the sites in SCE territory. See the “File naming requirements” subsection for details.
- **Monthly data only:** Unless otherwise specified, meter data files should only contain data for a single calendar month (where months are divided based on local time). For example, meter data submitted in July 2025 must only contain the meter data for June.

- **Data completeness:** It is the responsibility of the provider to ensure that meter data for all enrolled sites is submitted prior to the monthly deadline (see the “Submission deadline” subsection). If enrolled sites are missing meter data after the deadline, then unless otherwise communicated by the program administrator, they will not contribute to the aggregation’s demonstrated capacity for the month in question.
- **Data aggregation and identifiers:** Meter data must be compiled and submitted at the device/site level – the same level as used in the Option 3 participation reports. All identifiers in meter data files must match exactly with an identifier previously submitted in a participation report. An individual device/site can contain aggregated data from multiple batteries, as long as the level of aggregation matches the identifier, nameplate capacity, and estimated full duration discharge submitted in the Option 3 enrollment report.

3 File submission

Submission deadline

Meter data files are required to be submitted **within 15 business days** after the end of each month during program season. For example, meter data for devices that participated in May 2025 is due by end of day on June 23, 2025. Data can be submitted in multiple batches prior to the deadline if necessary.

File upload instructions

Providers will be able to upload meter data files through the Provider Portal (<https://app.olivineinc.com/i/dsgs>). Instructions:

1. Navigate to “**Submit Data File**” and select file for submission. **Providers must submit one separate file per UDC.**
2. Select “**Validate**” to receive feedback on file format and contents. Correct any formatting issues that are identified and re-upload a revised file.
3. Select “**Submit**” once the file has been validated.
4. Contact DSGS Support (dsgs-support@olivineinc.com) with any questions or issues.

4 File format requirements

Separator

All values must be separated by a single tab character. Data submitted with a comma separating values will not be accepted.

File extension

Set the file extension to “.oid” to indicate that it meets the specifications for the Olivine Interval Data format.

File Compression

Files can be compressed with gzip compression (.gz extension) to reduce file size and increase upload speed. Compression is highly encouraged but not required. Names of compressed files must end in “.oid.gz”.

Important: gzip is not the same as zip. Zip files will not be accepted.

File naming requirements

Required DSGS Option 3 meter data file naming pattern:

“<UDC>-DSGS_OPTION_3-<Provider ID>-MeterData-YYYYMMDDHHmmSS-<nnn>.oid”

Details:

- The filename must begin with the UDC followed by “-DSGS_OPTION_3-”.
- UDC is the Utility that operates the distribution grid for the sites/devices contained in the file. Files must be separated by UDC. Please note **that no “&” characters** are permitted in the UDC value. Unless otherwise specified, the following four values are the only acceptable values for UDC:
 - PGE
 - SCE
 - SDGE
 - LADWP
- Provider ID is the 3-letter ID assigned to the enrolled DSGS provider (eg. LEP, TSL)
- n = an optional number, used to differentiate multiple files generated in the same second
- HH must be 24-hour format
- YYYYMMDDHHmmSS is the time at which the file was generated.

Examples of valid filenames (where “ABC” is the Provider ID):

- PGE-DSGS_OPTION_3-ABC-MeterData-20250717104530-001.oid.gz
- SCE-DSGS_OPTION_3-ABC-MeterData-20251012000000.oid.gz
- SCE-DSGS_OPTION_3-ABC-MeterData-20250920110000.oid
- SDGE-DSGS_OPTION_3-ABC-MeterData-20250920110000.oid
- LADWP-DSGS_OPTION_3-ABC-MeterData-20251012000000-001.oid.gz

Sorting

The data must be sorted by Service Point ID, then Start Time (chronological order).

Duplicate Intervals

Files must not contain data for the same interval for the same site more than once. All data must be consolidated before generating the file.

Data consolidation and file size

If possible, meter data should be consolidated into a single file per month of data per UDC. However, multiple files are acceptable as well. If possible, files should be compressed using GZIP compression prior to upload. Individual files must not exceed 25 MB in size, after any compression is applied.

Sample files

Sample meter data files meeting the required format have been provided alongside this document.

Miscellaneous

No double or single quote characters are permitted in the file contents.

5 Data Dictionary

The following table lists the required fields of the meter data files. Each table row is a column in the data file. The header row in each file must contain the exact names listed in the "Column Name" values. All fields must be supplied, even if they are optional and their values are blank. All values provided must follow the corresponding specified description. The columns must appear from left to right in the order in which they appear in the table and be separated by **tab** characters.

Column Name	Type	Definition
Service Point ID	Text string	This is the same identifier as the Unique_ID from DSGS Enrolled Participation Reports. It is the identification number that uniquely identifies the individual device / site. This identifier must begin with the three-letter provider code, followed by a hyphen . All identifiers in meter data files must match exactly with an identifier previously submitted in a participation report. Example: <i>LEP-100002</i> or <i>TSL-651adc29-6814-4e5d-af1b-eccdb273eba9</i>
Parent ID	Text string	Must be populated with the exact same value as Service Point ID.
Channel Number	N/A	Leave empty.
Kind	Text string	Unless otherwise instructed, this field must be populated with the following: “Storage 2 1” including two pipe characters. This value will ensure that the data is interpreted correctly by Olivine’s platform.
UOM	Text string	The unit of measure of the interval value. Must be either kWh or kW. Not case sensitive. kWh energy values are preferred, but kW average power values are also supported.
Flow Direction	Text string	Populate with “Net”. Note that positive energy values indicate a net <i>charge</i> and negative energy values indicate a net <i>discharge</i> by the battery/device.
Interval Length	Integer	The interval length in seconds. Populate with “900” to indicate that each interval is 15 minutes long (preferred). Populate with “3600” to indicate that each interval is 60 minutes long (also supported).
Start Time	DateTime with offset	This is the start time of the first interval in the row. See the “Date and Time Formatting” section for formatting requirements. Example: 2025-09-14T00:00:00-7:00
End Time	DateTime with offset	This is the end time of the last interval in the row. See the “Date and Time Formatting” section for formatting requirements. Example: 2025-09-15T00:00:00-7:00

Count	Integer	Total number of energy interval values in the row. This depends on the format of the data (see the “Interval Values” section below). For example: Count must be 96 if the data is in the “one day per row” format and the intervals are 15-minute intervals.
<i>Interval values (optional column name(s) in header row)</i>	Decimal with no more than 6 digits of precision.	Interval value(s) representing the net charge/discharge. There can be multiple columns, representing successive intervals (see “Interval Values” section below). The number of interval values per row must match the Count field. Header row values are optional for the interval values. The header can be blank, removed, or set to something like “interval_01, interval_02”, etc. <i>Important: Positive numbers indicate net battery charge and negative numbers indicate net battery discharge.</i>

6 Interval Values

Number of Intervals per Row

The format supports one or more intervals per row. For DSGS, these two formats are acceptable:

- **One day per row:** One calendar day (in PDT) of a site’s meter data per row (i.e., 96 15-minute values per row or 24 hourly values per row).
- **Wide format:** All a site’s meter data intervals for the entire month in a single row.

Missing Interval Values

Individual interval values can be left empty to indicate missing data. When data is aggregated (summed) across multiple devices, blanks are treated as zeros.

Sign Convention and Data Precision

In this format, interval values with positive numbers indicate net battery *charge* and those with **negative numbers indicate net battery discharge**. Zeros indicate that there was no net charge or discharge in that period. Interval values must be decimal numbers with no more than 6 digits of precision. No scientific notation is permitted.

Interval length and Interval Start and End Times

15-minute data is preferred (Interval Length of 900 seconds), but hourly data (Interval Length of 3600 seconds) is also acceptable. If 15-minute data is submitted, the Start Time and End Time values must be

timestamps that fall on the regular intervals (:00, :15, :30, :45), and all data must be accurately compiled into 15-minute intervals. If hourly data is submitted, the Start Time and End Time values must be timestamps that fall on the regular hourly intervals (:00), and all data must be accurately compiled into hourly intervals.

7 File Header Row

Files must include a header row, containing a tab-delimited list of the exact names specified in the "Column Name" values of the table in the "Data Dictionary" section. Names of columns containing interval values are optional and will be ignored by the importer.

8 Date and Time Formatting

Required Format

The start and end time fields must be formatted as described in this section.

Exactly the components shown here must be present, with exactly this punctuation:

YYYY-MM-DDThh:mmTZD or YYYY-MM-DDThh:mm:ssTZD

- YYYY: Four-digit year
- MM: Two-digit month (01 - 12)
- DD: Two-digit day (01 - 31)
- hh: Two-digit hour (00 - 23)
- mm: Two-digit minute (00 – 59)
- ss: Two-digit second (00 – 59). This is optional.
- TZD: The time zone designator (Z or +hh:mm or -hh:mm). For example, Pacific Daylight Time (PDT) can be indicated with the "-07:00" suffix to indicate 7 hours behind UTC.

Notes

- The "T" appears literally in the string, to indicate the beginning of the time element.
- Preferably times will be expressed in the local time zone with the correct offset, but UTC is acceptable.
- All parts are required, except *seconds*, which is optional.
- Always include leading zeros to the month, day, hour, minute and (if present) second.
- There must be no spaces between any of the elements.
- The format is based on ISO 8601, but the Olivine specification is stricter.

Examples

The following examples correspond to the same time (May 23, 2025 at 2:15 PM Pacific Time):

2025-05-23T14:15-07:00
2025-05-23T14:15:00-07:00
2025-05-23T21:15Z

9 Units of Measure

The following units of measure are currently supported:

Value	Description
kWh	Energy in Kilowatt-hours. This is the preferred UOM.
kW	Average power in Kilowatts.

10 Data Completeness and Data Quality

Data Completeness

It is the responsibility of the provider to ensure that meter data for all enrolled sites is submitted prior to the monthly deadline. Providers should track sites with missing or incomplete data so that they can more accurately model the expected capacity. Olivine can provide a basic missing meter data report upon request.

Data Quality

It is the responsibility of the provider to ensure that the interval data submitted is accurate and representative of the true energy usage of the devices. The maximum charge and discharge power present in the data should not exceed the nameplate capacity of the device (as specified in the Option 3 participant report). Providers should screen for spikes or other anomalies in the data prior to upload. As stated in the DSGS guidelines, meter data is subject to CEC audit.

Data Corrections and Updates

Providers can submit corrections to meter data files by uploading a new file to the provider portal and notifying DSGS support that the data uploaded is a correction to previous data. Corrections will be accepted by default if they are submitted prior to the normal monthly deadline. If Olivine provides feedback to the provider indicating that there is substantial missing, invalid, or incorrect meter data, **the provider has 7 business days to resubmit corrected/updated data.**

Only Option 3 meter data submitted as part of the monthly reporting will be used for final calculation of demonstrated capacity and incentives. **No meter data can be submitted as part of the end-of-season claim process.**