

Schedule Dispatch Handbook

Verification

Committed Capacity is expected to be delivered consistently throughout the year. Variations in delivery for short term weather patterns will be accounted for when assessing verification and Failure to Perform. At a minimum, the PV Screenshot of an identifier, to identify owner to system. Do not show customers location, name, account number, or any other compromising information.

Point of metering should be the AC output of the inverter for AC or DC coupled systems.

CIT will request submittal of the following items. Emailed files will no longer be accepted as of 1/28/23.

- (1) Evidence of start time and 2hr block
- (2) Evidence of Committed Capacity programmed into inverter
- (3) Evidence provided in spreadsheet
- (4) [Excel](#) spreadsheet with passing data-kW in 5 (or 15) minute interval average over the interval.
Discharge data should be shown as “+” and charge data should be “-”

To pass verification of operational data test, the data must demonstrate battery discharge is in compliance with Committed Capacity. Below is an example on how to provide evidence and extract data for excel spreadsheet. Each inverter will provide a unique user interface.

(1) Evidence of start time

Screenshot the start time from inverter user interface, and name file A-SDP-YR-[meter#]_[date]_starttime.

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
00:00 - 09:59 Battery Hold (Idle)  										10:00 - 15:59 Battery Priority Charge (Solar Peak)  						16:00 - 18:00 Battery Secondary Charge (Solar Shoulder)  		18:01 - 20:01 Battery Discharge (System Peak)  		20:02 - 23:59 Battery Hold (Idle)  			

(2) Evidence of Committed Capacity programmed into inverter

Screenshot the Committed Capacity from inverter user interface, and name file A-SDP-YR--[meter#]_[date]_CC.

Battery Discharge (System Peak)

Excess generation export to grid allowed Loads should be ignored until battery is full

Disable battery charging Disable battery discharging

Battery charge (+) / discharge (-) watt setpoint

(3) Evidence provided in spreadsheet

Screenshot the graph or table from inverter user interface, and name file A-SDP-YR--[meter#]_[date]_excevidence.



(4) Excel Spreadsheet with Passing Data

Step 1) Download 5min or 15min data into spreadsheet

Information	Configuration	Status	Install Photos	Notes
EMC Status	Battery Status	Production	Export Events	Logs
Power	Energy	Downloads		

New Download

Report Type Generation & Battery Power Summary	File Name Duck SDP Validation .csv
Start Time 2021-09-30 00:00	End Time 2021-10-06 23:55
Interval Five Minute	Create

Submitted Downloads

Step 2) Read instructions in excel.

1	Version 04132023
2	INSTRUCTIONS
3	The purpose of this workbook is to verify PV plus battery systems under the Scheduled Dispatch Program (also known as the Battery Bonus Program) are performing appropriately.
4	
5	
6	Fill in the appropriate data for the cells highlighted in yellow
7	
8	Date Time: Copy and paste your interval data into this column. The data inputted should be formatted to include both the date and time. The time format can be inputted in Hawaii Standard Time (HST) or Coordinated Universal Time (UTC).
9	
10	Battery Discharge: Copy and paste the amount of power discharged by the battery. The data must be in kilowatts (kW). Discharge is (+) and charge is (-)
11	
12	Committed Capacity: Enter the committed capacity of the system. The data must be in kilowatts (kW).
13	
14	Time Zone: Indicate whether your data is in Hawaii Standard Time (HST) or Coordinated Universal Time (UTC).
15	
16	Dispatch Start Time: Select the assigned dispatch start time. The time is in 24 hour format and in Hawaii Standard Time (HST).
17	
18	Interval Length: Enter the length of your intervals. The unit of measurement is in minutes. Use the other verification tabs if you are using google sheets.
19	
	Beginning or End of Interval: This indicates whether your data is measured at the beginning or end of the end. For example: The interval is 2:00 to 2:05. If your data counts this interval as 2:00, select "Beginning."

Step 3) Copy in downloaded data (as value), update Committed Capacity, time zone, Dispatch Start time, Interval Length, and Beginning or End of the Interval. See the Instructions tab in the excel file for information on these fields.

* This document is password protected to protect the accuracy and integrity of the data/performance verification checks. The structure of the tables will not allow modification of their format. Duplicated spreadsheets to bypass protected fields will be rejected. You may copy/paste information into cells A2:A2041 and B2:B2041 (if using 5min data). Cells highlighted in yellow in column G must be manually entered or selected via drop down menu.

	A	B	C	D	E	F	G	H
	Date Time	Battery Discharge (kW)	Performance	Dispatch Window				
2	9/28/21 0:00	-0.010	--	0		Committed Capacity	5	kW
3	9/28/21 0:05	-0.010	--	0				
4	9/28/21 0:10	-0.010	--	0		Time Zone	HST	
5	9/28/21 0:15	-0.010	--	0				
6	9/28/21 0:20	-0.010	--	0		Dispatch Start Time (24 hr format)	18:01	HST
7	9/28/21 0:25	-0.010	--	0		Dispatch End Time	20:01	HST
8	9/28/21 0:30	-0.010	--	0				
9	9/28/21 0:35	-0.010	--	0		Interval Length (min)	0:05	
10	9/28/21 0:40	-0.010	--	0		Beginning or End of the Interval	Beginning	
11	9/28/21 0:45	-0.010	--	0				
12	9/28/21 0:50	-0.010	--	0				
13	9/28/21 0:55	-0.010	--	0		VERIFICATION		
14	9/28/21 1:00	-0.010	--	0		Data Start Date	9/28/21 0:00	
15	9/28/21 1:05	-0.010	--	0		Data End Date	10/4/21 23:55	
16	9/28/21 1:10	-0.010	--	0		Data Dispatch Start Time	18:01	HST
17	9/28/21 1:15	-0.010	--	0		Data Dispatch End Time	20:01	HST
18	9/28/21 1:20	-0.010	--	0		Verification Interval Start Time	18:05	HST
19	9/28/21 1:25	-0.010	--	0		Verification Interval End Time	19:55	HST
20	9/28/21 1:30	-0.010	--	0				
21	9/28/21 1:35	-0.010	--	0		Data Check	Data	Check
22	9/28/21 1:40	-0.010	--	0		Total Days	7.0	7
23	9/28/21 1:45	-0.010	--	0		Total Intervals	2016	2016
24	9/28/21 1:50	-0.010	--	0		Total Intervals/Day	288	288
25	9/28/21 1:55	-0.010	--	0		Interval Length (min)	5.00	5
26	9/28/21 2:00	-0.010	--	0		No. of Complete Dispatch Intervals	161	161
27	9/28/21 2:05	-0.010	--	0		No. of Complete Dispatch Intervals/Day	23	23

Step 4) Verify that you have provided the appropriate data. The information in the Data column should match or be close to the values in the Check column.

- a) In the Performance Count table, the count for 85% to 100% performance must be greater than the count in the Check column (137 or 42, depending on interval length) to pass the verification review.

VERIFICATION		
Data Start Date	9/28/21 0:00	
Data End Date	10/4/21 23:55	
Data Dispatch Start Time	18:01 HST	
Data Dispatch End Time	20:01 HST	
Verification Interval Start Time	18:05 HST	
Verification Interval End Time	19:55 HST	

Data Check	Data	Check
Total Days	7.0	7
Total Intervals	2016	2016
Total Intervals/Day	288	288
Interval Length (min)	5.00	5
No. of Complete Dispatch Intervals	161	161
No. of Complete Dispatch Intervals/Day	23	23

Performance	Data	Check
Average	100%	100%
Max	100%	100%
Min	96%	100%

Performance Count	Count	Check
85% - 100%	161	137
75% - 84%	0	0
50% - 74%	0	0
0% - 49%	0	0
Total	161	161

(5) Name excel file A-SDP-YR-[meter#]_[date]_7days, and email all 4 items to connect@hawaiianelectric.com

Additional Guidance

Equipment after Termination of Contract

If customer terminates SDP contract, the resource added for the intent of SDP must either be removed or transferred to available DER tariff at the time of the installation. (i.e. customer can't keep generation on NEM if they leave SDP, they would have to migrate system to NEM+, etc)

Remote dispatch

Remote dispatch is activation of an event through remote communications to the battery inverters instead of scheduling the program events within the software at the location of the battery. If customer

uses remote dispatch instead of scheduled daily dispatch, we recommend the inverters can be communicated to through OpenADR and IEEE2030.5 but not able to enforce it at this time.

Failure to Perform Cure Period

The tariff states that customer that is not performing will be given 30 day's to correct the failure, and if not corrected, will be charged \$150.00 per month. Exceptions to the 30 day cure window may be granted on a conditional basis provided that substantial proof can be submitted that there are extenuating circumstances preventing the system from exporting its committed capacity. Examples of extenuating circumstances, including, but not limited to:

- Out-of-stock replacement components that Hawaiian Electric can verify
- Installing contractor is no longer in business and a new contractor must be hired

Exceptions will be granted only 30 days at a time, at which point a new request for an exception with valid evidence may be submitted for Hawaiian Electric review and approval.