

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

Last Edit: 1/30/23

The screenshot shows a web interface with several tabs: Information, Configuration, Status, Install Photos, Notes, EMC Status, Battery Status, Production, Export Events, Logs, Power, Energy, and Downloads. The 'Downloads' tab is active, showing a 'New Download' form and a 'Submitted Downloads' table.

New Download Form:

- 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
- Buttons: Create

Submitted Downloads Table:

File Name	Start Time	End Time	Actions
Duck SDP Validation.csv	September 30, 2021 12:00am HST	October 6, 2021 11:55pm HST	Download, Delete

Step 2) Read instructions in excel.

	A	B	C	D	E	F	G	H
1	Date Time	Battery Discharge (kW)	Performance	Dispatch Window				
2			--	0		Committed Capacity	0	kW
3			--	0		Time Zone	HST	
4			--	0		Dispatch Start Time (24 hr format)	18:00	HST
5			--	0		Dispatch End Time	20:00	HST
6			--	0		Interval Length (min)	0.05	
7			--	0		Beginning or End of the Interval	Beginning	
8			--	0		VERIFICATION		
9			--	0		Data Start Date	1/0/00	0:00
10			--	0		Data End Date	1/0/00	0:00
11			--	0		Data Dispatch Start Time	18:00	HST
12			--	0		Data Dispatch End Time	20:00	HST
13			--	0		Verification Interval Start Time	18:05	HST
14			--	0		Verification Interval End Time	19:55	HST
15			--	0		Data Check	Data	Check
16			--	0		Total Days	0.0	7
17			--	0		Total Intervals	0	2016
18			--	0		Total Intervals/Day	#DIV/0!	288
19			--	0		Interval Length (min)	#DIV/0!	5
20			--	0		No. of Complete Dispatch Intervals	0	161
21			--	0		No. of Complete Dispatch Intervals/Day	#DIV/0!	23

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.

	A	B	C	D	E	F	G	H
1	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		Time Zone	HST	
4	9/28/21 0:10	-0.010	--	0		Dispatch Start Time (24 hr format)	18:01	HST
5	9/28/21 0:15	-0.010	--	0		Dispatch End Time	20:01	HST
6	9/28/21 0:20	-0.010	--	0		Interval Length (min)	0.05	
7	9/28/21 0:25	-0.010	--	0		Beginning or End of the Interval	Beginning	
8	9/28/21 0:30	-0.010	--	0		VERIFICATION		
9	9/28/21 0:35	-0.010	--	0		Data Start Date	9/28/21	0:00
10	9/28/21 0:40	-0.010	--	0		Data End Date	10/4/21	23:55
11	9/28/21 0:45	-0.010	--	0		Data Dispatch Start Time	18:01	HST
12	9/28/21 0:50	-0.010	--	0		Data Dispatch End Time	20:01	HST
13	9/28/21 0:55	-0.010	--	0		Verification Interval Start Time	18:05	HST
14	9/28/21 1:00	-0.010	--	0		Verification Interval End Time	19:55	HST
15	9/28/21 1:05	-0.010	--	0		Data Check	Data	Check
16	9/28/21 1:10	-0.010	--	0		Total Days	7.0	7
17	9/28/21 1:15	-0.010	--	0		Total Intervals	2016	2016
18	9/28/21 1:20	-0.010	--	0		Total Intervals/Day	288	288
19	9/28/21 1:25	-0.010	--	0		Interval Length (min)	5.00	5
20	9/28/21 1:30	-0.010	--	0		No. of Complete Dispatch Intervals	161	161
21	9/28/21 1:35	-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 stats that customer that is not performing will be given 30 day's to correct the failure, and if not corrected, will be charged \$100.00 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.