

# Powering Past Coal Task Force - Master Schedule

## Summary

This document is a master schedule to provide a common operating picture of the overall progress to replace the electricity currently provided by the coal plant. On the next page, the grey line items are PUC approved measures. Lines beneath these may be projects or initiatives that fall under each PUC docket. Colored boxes indicate key milestones or project commercial operation dates.

## Purpose

On March 30, 2021, by [Executive Order 21-01](#), Governor David Ige established the Powering Past Coal Task Force to convene stakeholders to increase transparency, coordination, collaboration, and urgency to timely facilitate, coordinate, and align the reviews and approvals needed for the measures and projects that the PUC approved to replace the electricity and grid stability currently provided by Hawai'i's last coal-fired power plant, located on O'ahu.

To achieve the Task Force objectives, a primary activity of the Task Force is to develop and maintain a [Master Schedule](#), as shown on next page, which provides a timeline and status summary of the measures and projects needed to replace the coal plant with renewable energy.

These measures and projects will collectively support O'ahu's transition away from fossil fuels.

The coal plant's generation capacity is **180 MW** and in 2020 it provided **16% of O'ahu's electrical energy**; notably, providing more energy during peak and non-daylight hours. It has been operating since 1992.

The Task Force is chaired by the Chief Energy Officer of the Hawai'i State Energy Office and includes members from State and City and County of Honolulu government, the Hawai'i State Legislature, Hawaiian Electric, renewable energy development companies, and energy-related public interest groups.

The Task Force is not a policy-making or decision-making body and does not pursue statutory or administrative rule changes.

The coal plant is planned for retirement on **SEPTEMBER 1, 2022**, as indicated by the vertical **black line** in the Master Schedule. State law prohibits the use of coal for power generation in Hawai'i after December 31, 2022.

## Terms and Abbreviations Used

**COD** - Commercial Operations Date - Target date for a project to begin commercial operations.

**Force Majeure** - Contract clause that removes liability to parties for unavoidable and unexpected events that prevent parties from fulfilling contractual obligations (e.g., unforeseen supply shortages or natural disasters).

**GCOD** - Guaranteed Commercial Operations Date - Contractually binding date for a project to begin commercial operations.

**HECO** - Hawaiian Electric Company - The only electric utility servicing the island of O'ahu, part of Hawaiian Electric.

**IRS** - Interconnection Requirements Study - A study to establish the requirements for interconnection of a Generating Facility with the HECO's Distribution System

**MW** - Megawatt - Measurement of power, capacity, or demand. Represented below as *generating capacity* of a project.

**PPA** - Power Purchase Agreement - A contract for an electric utility to purchase energy and or capacity from a commercial source (e.g., utility scale solar project) at a predetermined price or based on pre-determined pricing formulas.

**PUC** - Hawai'i Public Utilities Commission

**RPS** - [Renewable Portfolio Standard](#) - A goal for the percentage of **electricity sales** in Hawai'i to be derived from renewable energy sources.

Hawai'i RPS = 100% renewable energy for electricity consumption by 2045

**Utility RPS** - The percentage of a utility's electricity sales that comes from renewable energy. In the case of Hawaiian Electric, its Utility RPS is a combination of the three electric utilities servicing O'ahu, Maui County (Maui, Moloka'i, Lāna'i), and Hawai'i island: respectively, Hawaiian Electric Company (HECO), Maui Electric Company (MECO), and Hawai'i Electric Light Company (HELCO).

## Schedule Legend

Green = Accelerated COD or GCOD	Yellow = Original Proposed GCOD	Red = Delayed COD or GCOD
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**Disclaimer:** *The information represented below is public and can be found within the PUC dockets. The project schedule is evolving—what is represented on the next page is subject to future additions and changes. For the most up-to-date information on the status of each project, HSEO recommends referencing the PUC dockets and/or appropriate agencies regarding the status of their approvals. Additional information can be found in the individual PUC dockets and on the project webpages, all of which are linked within the schedule on the next page.*

PUC Docket Number and Link	PUC Approved Measures to Replace Generation and Capacity of the Coal Plant	Production Capacity (MW)	Estimated Utility RPS Percent Contribution	21-Jul	21-Aug	21-Sep	21-Oct	21-Nov	21-Dec	22-Jan	22-Feb	22-Mar	22-Apr	22-May	22-Jun	22-Jul	22-Aug	22-Sep	22-Oct	22-Nov	22-Dec	23-Jan	23-Feb	23-Mar	23-Apr	23-May	23-Jun	23-Jul	23-Aug	23-Sep	23-Oct	23-Nov	23-Dec												
2021-0024 Utility-Scale Projects (Stage 1 and 2)																																													
<a href="#">2019-0050</a>	AES West O'ahu Solar (Stage 1)	12.5	0.4	<ul style="list-style-type: none"> <li>Q3-Q4-21: Building and Electrical Permit (DPP)</li> <li>Q3-Q4-21: Noise Permit (DOH Radiological Health)</li> <li>Q3-Q4-21: Grading Permit (DPP)</li> </ul> Anticipated Construction Start Oct-Nov 22														GCOD 9-7-22																											
<a href="#">2018-0434</a>	Mililani I Solar (Stage 1)	39	1.2	PPA Amendment Requested Approval Date 10-8-21														Proposed GCOD 7-31-22																											
<a href="#">2018-0435</a>	Waiawa Solar (Stage 1)	36	1.2	PPA Amendment Requested Approval Date 10-8-21														Proposed GCOD 9-30-22																											
<a href="#">2020-0136</a>	Kapolei Energy Storage (KES) (Stage 2)	185 (Storage)	0.1	Q1-22 Construction Anticipated to Start														Original GCOD 6-1-22	COD Early delivery																										
<a href="#">2020-0139</a>	Mountain View Solar (Stage 2)	7	0.3	9-29-21 Virtual Community Meeting														Q2-22 Construction Anticipated to Start																											
<a href="#">2020-0138</a>	Kupehau Solar (Stage 2)	60	1.3	Q1-22 Construction Anticipated to Start														Original GCOD 5-31-22																											
<a href="#">2018-0431</a>	Ho'ohana Solar 1 (Stage 1)	52	1.4	Q1-22 Construction Anticipated to Start																																									
<a href="#">2020-0137</a>	Waiawa Phase 2 Solar (Stage 2)	30	1.2	Q2-22 Construction Anticipated to Start																																									
<a href="#">2020-0140</a>	Mahi Solar (Stage 2)	120	3.1	SHPD Concurrence Received, LUC Hearing on Special Permit 9-9-21 (Approved)														Remaining Construction Permits Q1-22 Construction Anticipated to Start														Proposed COD	Proposed GCOD 9-30-23												
Sum Online Before 9-1-22 Based on Current GCOD (Includes project's with advanced timeline)		111.5	3.0																																										
Sum All Projects		356.5	10.2																																										
2019-0323 Distributed Energy Resources (DER)																																													
		50	TBD	Battery Plus Program Started 07-19-21														Minimum capacity required per HNEI 36MW	Program Enrollment Ends Jun-23																										
2015-0389 Community-Based Renewable Energy (CBRE) - Shared Solar																																													
	Phase 1	4.99 (current sum)	TBD																																										
	Phase 2	105 capacity limit	TBD																																										
2018-0163 Microgrid Services Tariff*																																													
		TBD	TBD																																										
2007-0323 Energy Efficiency - Public Benefits Fund *																																													
		-45	TBD																																										
2017-0352 O'ahu Grid Services RFP *																																													
		60	TBD	COD for Proposals																																									
2014-0135 Green Infrastructure Loan Program- Green Energy Market Securitization (GEMS) *																																													
		-44	TBD																																										
2007-0341 Demand Side Response - Grid Services Purchase Agreements *																																													
		TBD	TBD																																										

\* These measures are not currently items that are Task Force priority; however, they play an important role in ensuring O'ahu meets the production capacity requirements necessary to retire the coal plant and meet renewable energy goals. Measures may be brought to the Task Force should the need arise.

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PUC Docket Number and Link	PUC Approved Measures to Replace Generation and Capacity of the Coal Plant	Developer	Project or Task Updates	Milestones and Next Steps (if Applicable)	Production Capacity (MW)	Estimated Utility RPS Percent Contribution	Guaranteed Commercial Operations Date
2021-0024 Utility-Scale Projects (Stage 1 and 2)							
<a href="#">2019-0050</a>	West O'ahu Solar (Stage 1)	AES Distributed Energy Inc.	<ul style="list-style-type: none"> <li>Construction anticipated to start October-November 2021</li> <li>Special Use Permit (SUP) approved by Land Use Commission (LUC) 6-9-21; Decision &amp; Order adopted 6-22-21</li> <li>CUP-minor issued by DPP 8-3-21</li> <li>AES monitoring supply chain issues due to COVID.</li> </ul>	<ul style="list-style-type: none"> <li>October-November: Estimate sending easement to land court (AES to DLNR - Bureau of Conveyances)</li> <li>Q3-Q4-21: Building and Electrical Permit (DPP)</li> <li>Q3-Q4-21: Noise Permit (DOH Radiological Health)</li> <li>Q3-Q4-21: Grading Permit (DPP)</li> </ul>	12.5	0.4	GCOD 9-7-22
<a href="#">2018-0434</a>	Milliani I Solar (Stage 1)	Clearway Energy Group LLC; Global Infrastructure Partners	<ul style="list-style-type: none"> <li>Construction started; ongoing work includes pile installation for PV arrays and inverter station, underground cabling, combiner box mounting, and substation foundation work.</li> <li>PPA amendment negotiations to potentially accelerate the GCOD.</li> <li>PPA Amendment submitted to the PUC 8-6-21, procedural order adopted by PUC 8-12-21</li> <li>Division of Consumer Advocacy recommends Commission approve proposed amendment, Statement of Position 9-9-21.</li> </ul>	<ul style="list-style-type: none"> <li>9-16-21: HECO's Reply SOP, if necessary</li> <li>10-8-21: Requesting decision from PUC on or before 10-8-21 for approval of PPA amendment (PUC)</li> </ul>	39	1.2	Proposed GCOD 7-31-22 Original GCOD 11-1-22
<a href="#">2018-0435</a>	Waiawa Solar (Stage 1)	Clearway Energy Group LLC; Global Infrastructure Partners	<ul style="list-style-type: none"> <li>Construction started; PCS pile installation began and is ongoing.</li> <li>PPA amendment negotiations to potentially accelerate the GCOD. Will result in unit price increase</li> <li>Two suppliers have notified Clearway Energy of Delays; "seller supply delays" are a significant concern.</li> <li>PPA Amendment submitted to the PUC 8-6-21, procedural order adopted by PUC 8-12-21</li> <li>Division of Consumer Advocacy recommends Commission approve proposed amendment, Statement of Position 9-9-21.</li> </ul>	<ul style="list-style-type: none"> <li>9-16-21: HECO's Reply SOP, if necessary</li> <li>10-8-21: Requesting decision from PUC on or before 10-8-21 for approval of PPA amendment (PUC)</li> </ul>	36	1.2	Proposed GCOD 9-30-22 Original GCOD 12-1-22
<a href="#">2020-0136</a>	Kapolei Energy Storage (KES) (Stage 2)	Plus Power	<ul style="list-style-type: none"> <li>Construction anticipated to start Q1-22, ground breaking 8-11-21</li> <li>Battery supplier cannot guarantee delivery until Aug-22, delaying initial GCOD under Force Majeure condition.</li> <li>138 kV overhead line application filed 6-21-21; project needs IRS amendment and overhead line approval by 9-1-21 for financial closing process.</li> <li>8-18-21: Consumer Advocate does not object to the Commission's determination the 138 kV transmission line be built overhead.</li> <li>KES is looking at rolling commissioning by looking at each battery as it's installed and hooked up.</li> <li>System Impact Study (SIS) completed and provided to developer 6-21-21; post-SIS partial re-study required, anticipated to be completed end of Aug-21; not anticipated to impact the interconnection facilities or project schedule.</li> <li>Interconnection Requirements Study (IRS) began 6-25-21; filed 8-11-21.</li> </ul>	<ul style="list-style-type: none"> <li>8-11-21: IRS Amendment Filing Date (KES, HECO)</li> <li>9-1-21: Overhead line approval request date (PUC)</li> <li>11-15-21: Construction financing milestone, ability to draw funds or financial capability to construct project shall be documented (KES)</li> </ul>	185 (Storage)	0.1	Original GCOD 6-1-22 New GCOD 12-30-22
<a href="#">2020-0139</a>	Mountain View Solar (Stage 2)	AES Distributed Energy Inc.	<ul style="list-style-type: none"> <li>Currently on target to meet GCOD.</li> <li>Continuing Cultural Impact Assessment, project layout and design, and studies.</li> <li>HECO and AES working on early engineering agreement for interconnection facilities.</li> <li>Early Engineering has commenced Aug-21</li> <li>Construction anticipated to start Q2-22.</li> </ul>	<ul style="list-style-type: none"> <li>9-29-21: Next public meeting scheduled (AES)</li> <li>Aug-21: Start negotiation for IRS amendment (AES and HECO)</li> </ul>	7	0.3	GCOD 5-17-23
<a href="#">2020-0138</a>	Kupehau Solar (Stage 2)	174 Power Global; Hanwha Energy USA	<ul style="list-style-type: none"> <li>Joint interconnection with Ho'ohana resulted in delays to the COD of approximately 1 year beyond 5-31-2022 (original GCOD).</li> <li>Ho'ohana Switchyard (Note: Kupehau sharing Ho'ohana interconnection; review of Ho'ohana's design package covers Kupehau as well)</li> <li>Developer 60% design package submitted 7-14-21 (slipped from 6-3-21); HECO comments provided 8-4-21.</li> <li>174 Power Global monitoring supply chain issues related to Withhold Release Order by U.S. Customs and Border Protection, relating to materials in solar panels.</li> <li>Construction anticipated to start Q1-22.</li> </ul>	<ul style="list-style-type: none"> <li>Aug-21: Final Facility Study completed (HECO)</li> </ul>	60	1.3	Original GCOD 5-31-22 New COD 7-1-23
<a href="#">2018-0431</a>	Ho'ohana Solar 1 (Stage 1)	174 Power Global; (Hanwha Energy Corporation; Forest City Sustainable Resources)	<ul style="list-style-type: none"> <li>Currently on target to meet GCOD</li> <li>60% Switchyard Design submitted 7-14-21; 90% Switchyard Design Due 10-6-21, slipped to 11-15-21; delay as a result of extended engineering - design cycle; delay should not impact COD.</li> <li>Kahe-Wai'au 138 kV underground line application filed 6-15-21; Wai'au-Milliani 46kV underground-overhead line relocation application filed 6-18-21.</li> <li>System impact re-study for the point of interconnection (POI) change was completed and report was provided on 6-28-21, indicated no need for extended GCOD or amended PPA.</li> <li>174 Power Global monitoring supply chain issues related to Withhold Release Order by U.S. Customs and Border Protection, relating to materials contained in solar panels.</li> <li>8-10-21 - HECO's request to construct 138 kV transmission line extension above the surface was approved by the Commission.</li> <li>Construction anticipated to start Q1-22.</li> </ul>	<ul style="list-style-type: none"> <li>11-15-21: 90% Switchyard Design drawings, expected (L74PG)</li> <li>Aug-21: NPDES Permit (Solar-Battery) - update received (DOH - CWB)</li> <li>Oct-21: Grading Permit &amp; NPDES Permit (Solar-Battery) (DPP)</li> </ul>	52	1.4	GCOD 8-31-23
<a href="#">2020-0137</a>	Waiawa Phase 2 Solar (Stage 2)	AES Distributed Energy Inc.	<ul style="list-style-type: none"> <li>Currently on target to meet GCOD.</li> <li>Identified risks include line extension conflicts with Waiawa State 1 project and need for breaker replacement (system work) at Wahiawa substation.</li> <li>Construction anticipated to start Q2-22.</li> </ul>	<ul style="list-style-type: none"> <li>Q4-21 to Q1-22: CUP-Minor, Zoning Waiver, Building, Grading Permits anticipated (DPP)</li> </ul>	30	1.2	GCOD 10-30-23
<a href="#">2020-0140</a>	Mahi Solar (Stage 2)	Longroad Energy	<ul style="list-style-type: none"> <li>Currently on target to meet GCOD, working to amend PPA to accelerate GCOD. PPA amendment would increase unit price in exchange for accelerated GCOD.</li> <li>Special Use Permit (SUP) unanimously approved by CCH Planning Commission 6-23-21, Special Permit unanimously approved by LUC 9-9-21.</li> <li>DLNR-SHPD concurrence on Archeological Inventory Survey, received (DLNR-SHPD)</li> <li>System Impact Study (SIS) completed and provided 6-21-21; post-SIS partial restudy will be performed for a model update.</li> <li>Construction anticipated to start Q1-22.</li> </ul>	<ul style="list-style-type: none"> <li>9-15-21: Commission decision requested on the proposed PPA amendment submitted 7-30-21 (PUC)</li> <li>10-29-21: Submit Interconnection Requirements to PUC (HECO)</li> </ul>	120	3.1	Proposed GCOD 9-30-23 GCOD 12-31-23
Sum Online Before Coal Plant Retirement Based on Current GCOD without Accelerated Timelines					60	1.3	
Sum Online Before Coal Plant Retirement Based on Current GCOD (Includes project's with advanced timeline)					111.5	3.0	
Sum All Projects					356.5	10.2	

Publish Date: September 13, 2021, Questions can be sent via email to Monique Schafer, Monique.m.schafer@hawaii.gov, at the Hawai'i State Energy Office.

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PUC Docket Number and Link	PUC Approved Measures to Replace Generation and Capacity of the Coal Plant	Developer	Project or Task Updates	Milestones and Next Steps (if Applicable)	Production Capacity (MW)	Estimated Utility RPS Percent Contribution	Guaranteed Commercial Operations Date
2019-0323	Distributed Energy Resources (DER)		<ul style="list-style-type: none"> <li>• PUC issued Decision and Order on 6-8-21 for HECO to implement a Schedule Dispatch Program (SDP) for commercial and residential rooftop photovoltaic systems. The program incentivizes new and existing DER tariff customer generators to install battery storage for existing or added photovoltaic systems. New battery systems will discharge on a scheduled basis during peak hours</li> <li>• 8-13-21 - HECO released monthly update on SDP program. 26 total SDP amendments submitted. 0 approved, 24 awaiting initial review. 0 kW in progress or installed.</li> <li>• Work with stakeholders to develop strategy to ensure timely permitting and interconnection is ongoing.</li> <li>• 8-6-21: PUC approves HECO's request to extend the schedule residential time-of-use electric vehicle "TOU EV" program offering for its O'ahu, Maui, and Hawaii service territories until new TOU rate options are available.</li> </ul>	<ul style="list-style-type: none"> <li>• 7-19-21: Battery Plus program officially announced by HECO</li> </ul>	50	TBD	June 2023 Program Enrollment Ends
2015-0389	Community-Based Renewable Energy (CBRE) - Shared Solar		<ul style="list-style-type: none"> <li>• CBRE Phase 1: All projects GCODs are on track or have been achieved to date.</li> <li>• Three (3) O'ahu projects, totaling 4.99MW capacity.</li> </ul>		4.99 (current sum)	TBD	
	Phase 1		<ul style="list-style-type: none"> <li>• CBRE Phase 2: 07-27-21 PUC issues decision and order approving CBRE filings; should be ready for subscriber enrollment in 2022.</li> <li>• Capacity limit is 105 MW for Oahu. Hawaiian Electric has application capacities of 75 MW Large Projects, 15 MW Small Projects, with one (1) minimum 1 uncapped Project</li> </ul>	<ul style="list-style-type: none"> <li>• 8-25-21: Deadline for HECO to file finalized RFPs, Rule 29 tariffs, and supporting documents (HECO)</li> </ul>	105 capacity limit	TBD	
2018-0163	Microgrid Services Tariff*		<ul style="list-style-type: none"> <li>• PUC issued Decision and Order approving microgrid tariff 5-17-21.</li> <li>• HECO submitted microgrid tariff 5-27-21; the Microgrid Services Tariff is intended to encourage and facilitate the development and use of new microgrids throughout Hawaii, with the exception of Kauai.</li> <li>• A microgrid is defined as a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single self-governing controllable entity with respect to the utility's electrical grid and is connected to a public utility's electrical grid to operate in "grid connected mode", or can disconnect to operate in "island mode".</li> </ul>		TBD	TBD	
2007-0323	Energy Efficiency - Public Benefits Fund *		<ul style="list-style-type: none"> <li>• Docket includes energy efficiency measures that serve to decrease electricity sales and defer or decrease the need for plant investment.</li> <li>• The negative number shown in the next column indicates the estimated decrease in required production capacity that can be achieved through energy efficiency programs and demand side management.</li> <li>• This measure is administered through a third party, Hawaii Energy.</li> </ul>		-45	TBD	
2017-0352	O'ahu Grid Services RFP *		<ul style="list-style-type: none"> <li>• RFP seeks customer sited grid services through a competitive bid request for proposals (RFP). The RFP seeks proposals that include the delivery of Capacity Reduction Grid Service, but proposals that include fast frequency response or capacity build bundled in their proposal will also be considered</li> <li>• 8-3-21 - PUC approved, with modifications, the HECO proposed RFP for 60 MW of grid services on the island of Oahu.</li> </ul>		60	TBD	COD 9-1-2022 for Proposals
2014-0135	Green Infrastructure Loan Program- Green Energy Market Securitization (GEMS) *		<ul style="list-style-type: none"> <li>• Leverages public-private capital to deploy clean energy infrastructure that will contribute towards Hawaii's pursuit of its statutory 100% clean energy goals by 2045 while helping ratepayers lower their energy costs.</li> <li>• 8-10-21 - PUC establishes procedural schedule to review the Green Infrastructure Loan Program</li> <li>• Hawaii Green Infrastructure Authority agrees to include the number and value of loans made to finance purchase options and the number and value of loans to finance EVs and EV charging stations and principal repaid into the State Revolving Fund in the quarterly report.</li> </ul>	<ul style="list-style-type: none"> <li>• 8-6-21 - 8-19-21: Rolling Information Requests</li> <li>• 8-27-21: Last day for the Infrastructure Authority to respond to information requests</li> <li>• 9-10-21: Optional SOP from the Parties</li> <li>• 9-17-21: Authority's reply SOP if necessary</li> </ul>	TBD	TBD	
2007-0341	Demand Side Management (DSM)		<p>Programs that incentivize residential, commercial, and industrial energy savings through rate schedules. DSM programs generally consist of the planning, implementing, and monitoring activities of electric utilities which are designed to encourage consumers to modify their level and pattern of electricity usage. Docket includes tariffs and prices to encourage lower consumption</p>		TBD	TBD	

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