DOCKETED	
Docket Number:	23-PSDP-01
Project Title:	Power Source Disclosure Program - 2022
TN #:	250458
Document Title:	Calpine Solutions 2022 PSD Redacted
Description:	N/A
Filer:	Bryan White
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Submitter Role:	Applicant
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Version: April 2023

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT For the Year Ending December 31, 2022

Retail suppliers are required to use the posted template and are not allowed to make edits to this format. Please complete all requested information.

GENERAL INSTRUCTIONS

	DETAIL CURRILER NAME							
	RETAIL SUPPLIER NAME							
	Calpine Energy Solutions, LLC							
	ELECTRICITY PORTFOLIO NAME							
	CA Power Mix							
	CONTACT INFORMATION							
NAME	Greg Bass							
TITLE	Regulatory Director							
	Regulatory Director							
MAILING ADDDEGG	404 Mart A Ot Ouite 500							
MAILING ADDRESS	401 West A St., Suite 500							
CITY, STATE, ZIP	San Diego, CA 92101							
PHONE	619-684-8199							
EMAIL	greg.bass@calpine.com							
	д. од. остр							
WEBSITE URL FOR								
PCL POSTING	calpinesolutions.com							

Submit the Annual Report and signed Attestation in PDF format with the Excel version of the Annual Report to PSDprogram@energy.ca.gov. Remember to complete the Retail Supplier Name, Electricity Portfolio Name, and contact information above, and submit separate reports and attestations for each additional portfolio if multiple were offered in the previous year.

NOTE: Information submitted in this report is not automatically held confidential. If your company wishes the information submitted to be considered confidential an authorized representative must submit an application for confidential designation (CEC-13), which can be found on the California Energy Commissions's website at https://www.energy.ca.gov/about/divisions-and-offices/chief-counsels-office.

If you have questions, contact Power Source Disclosure (PSD) staff at PSDprogram@energy.ca.gov or (916) 639-0573.

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT SCHEDULE 1: PROCUREMENTS AND RETAIL SALES For the Year Ending December 31, 2022 Calpine Energy Solutions, LLC CA Power Mix

Instructions: Enter information about power procurements underlying this electricity portfolio for which your company is filing the Annual Report. Insert additional rows as needed. All fields in white should be filled out. Fields in grey auto-populate as needed and should not be filled out. For EIA IDs for unspecified power or specified system mixes from asset-controlling suppliers, enter "Unspecified Power", "BPA", or "Tacoma Power" as applicable. For specified procurements of ACS power, use the ACS Procurement Calculator to calculate the resource breakdown comprising the ACS system mix. Procurements of unspecified power must not be entered as line items below unspecified power will be calculated automatically in cell N9. Unbundled RECs must not be entered on Schedule 1; these products must be entered on Schedule 2. At the bottom portion of the schedule, provide the other electricity end-uses that are not retail sales including, but not limited to transmission and distribution losses or municipal street lighting. Amounts should be in megawatt-hours.

Retail Sales (MWh)

Net Specified Procurement (MWh)

Unspecified Power (MWh)

Procurement to be adjusted

Net Specified Natural Gas

Net Specified Coal & Other Fossil Fuels

Net Specified Nuclear, Large Hydro, Renewables, and ACS Power

GHG Emissions (excludes grandfathered emissions)

1,856,964

GHG Emissions Intensity (in MT CO₂e/MWh)

0,3377

	DIRECTLY DELIVERED RENEWABLES												
Facility Name	Fuel Type	State or Province	WREGIS ID	RPS ID	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO ₂ e/MWh)	GHG Emissions (in MT CO₂e)	N/A
Arlington Energy Center III, LLC - Arlington III	Solar	CA	W13876	64745A		57680	123767	-	123,767	123,767	-		
Blythe Solar 110, LLC - BLY110-B01 Block 1	Solar	CA	W4880	60878A		60093	110153	_	110,153	110,153	-	-	
Blythe Solar 110, LLC - BLY110-B02 Block 02	Solar	CA	W4953	60878A		60093	104483	-	104,483	104.483	-	-	
Blythe Solar 110, LLC - BLY110-B03 Block 03	Solar	CA	W4954	60878A		60093	82346	-	82.346	82.346			
Calabasas Gas-to-Energy Facility - CGTEF	Biomass & biowaste	CA	W1376	60866A		57163	28641	-	28,641	28,641	0.0043	122	
Gevsers Power Plant - Calistoga Power Plant	Geothermal	CA	W486	60117A		50066	2763	-	2,763	2,763	0.0366	101	
Geysers Power Plant - Calpine Geothermal Unit 11	Geothermal	CA	W119	60025A		286	2737	-	2,737	2,737	0.0366	100	
Geysers Power Plant - Calpine Geothermal Unit 12	Geothermal	CA	W120	60004A		286	4471	-	4,471	4,471	0.0366	164	
Geysers Power Plant - Calpine Geothermal Unit 13	Geothermal	CA	W121	60005A		286	8566	-	8,566	8,566	0.0366	314	
Geysers Power Plant - Calpine Geothermal Unit 14	Geothermal	CA	W122	60026A		286	14548	-	14,548	14.548	0.0366	533	
Geysers Power Plant - Calpine Geothermal Unit 16	Geothermal	CA	W123	60006A		286	27114	-	27,114	27,114	0.0366	993	
Geysers Power Plant - Calpine Geothermal Unit 17	Geothermal	CA	W124	60007A		286	44617	-	44,617	44.617	0.0366	1,634	
Geysers Power Plant - Calpine Geothermal Unit 18	Geothermal	CA	W125	60008A		286	13250	_	13,250	13,250	0.0366	485	
Geysers Power Plant - Calpine Geothermal Unit 20	Geothermal	CA	W126	60009A		286	6222	-	6,222	6,222	0.0366	228	
Geysers Power Plant - Sonoma/Calpine Geyser	Geothermal	CA	W127	60010A		510	3552	-	3,552	3,552	0.0366	130	
Golden Hills A - Golden Hills A	Wind	CA	W4800	62804A		60049	124962	-	124,962	124,962	-	-	
Lake Mathews - MWD Lake Mathews	Eligible hydro	CA	W5510	60545A		6644	828	-	828	828			
MM West Covina - MM West Covina 2	Biomass & biowaste	CA	W442	60478A		54015	16611	-	16.611	16,611	0.0050	82	
MM West Covina - MM West Covina, LLC	Biomass & biowaste	CA	W440	60478A		54015	23054	_	23.054	23,054	0.0050	114	
Mohave County Wind Farm LLC - White Hills	Wind	AZ	W10999	64321A		63114	139394	-	139,394	139,394	-	-	
Red Mountain - MWD Red Mountain	Eligible hydro	CA	W473	60625A		484	403	-	403	403	-		
San Dimas - MWD San Dimas	Eligible hydro	CA	W5515	60547A		6646	4034		4,034	4,034	-	-	
Sanborn Solar 1A - Sub Project S1 - Edwards Sanborn S1	Solar	CA	W12674	64741A		64879	102395	-	102.395	102.395	-	-	
Total Energy Facility - TEF - GEN 1	Biomass & biowaste	CA	W866	60633A		10091	1272		1.272	1,272	0.0563	72	
Total Energy Facility - TEF - GEN 4	Biomass & biowaste	CA	W3412	60633A		10091	1186	-	1,186	1,186	0.0563	67	
Total Energy Facility - TEF - GEN2	Biomass & biowaste	CA	W867	60633A		10091	1272	-	1,272	1,100	0.0563	72	
Total Energy Facility - TEF - GEN3	Biomass & biowaste	CA	W868	60633A		10091	1272	_	1,272	1,272	0.0563	72	
Yorba Linda - MWD Yorba Linda	Eligible hydro	CA	W5516	60548A		6647	6247	-	6,247	6,247	0.0303	-	
Torba Linda - MWD Torba Linda	Eligible flydro	Un.	VV3510	OUSTOA		0047	0247		0,247	0,247	#N/A		
	<u> </u>								-	-	#N/A		
					EIRMED	-AND-SHAPE	DIMPORTS		_		#IN/A		
						EIA ID of	D IMI OKTS				GHG Emissions		Eligible for
		State or			REC	Substitute	Gross MWh		Net MWh	Adjusted Net MWh	Factor (in MT	GHG Emissions	Grandfathered
Facility Name	Fuel Type	Province	WREGIS ID	RPS ID	Source	Power	Procured	MWh Resold	Procured	Procured	CO ₂ e/MWh)	(in MT CO ₂ e)	Emissions?
Limon Wind - Limon Wind I	Wind	CO	W3157	62246A	58126	Unspecified I	105,053	-	105,053	105,053	0.4280	44,963	No
Limon Wind II - Limon Wind II, LLC	Wind	CO	W3158	62246A	58127	Unspecified I	94,947	-	94,947	94,947	0.4280	40,637	No
Vansycle II - Vansycle II	Wind	OR	W1458	60944A	55989	Unspecified I	39,008	-	39,008	39,008	0.4280	16,695	No
									-	-	#N/A		
	1								-	-	#N/A		
				SPE	ECIFIED NON-	RENEWABLE	E PROCUREMENTS	s					
											GHG Emissions		
		State or					Gross MWh		Net MWh	Adjusted Net MWh	Factor (in MT	GHG Emissions	
Facility Name	Fuel Type	Province	N/A	N/A	N/A	EIA ID	Procured	MWh Resold	Procured	Procured	CO ₂ e/MWh)	(in MT CO ₂ e)	N/A
Big Creek No. 3	Large hydro	CA				319	84,796	-	84,796	84,798	-	-	
Balch #1 PH						217	703	I	703	703	-	-	
	Large hydro	CA			_				-				
Balch #2 PH	Large hydro	CA				218	2,458		2,458	2,458	-	-	
Belden	Large hydro Large hydro	CA CA				218 219	1,885		1,885	1,885	-	-	
Belden Bucks Creek	Large hydro	CA CA CA				218 219 220	1,885 748		1,885 746	1,885 746	-	-	
Belden	Large hydro Large hydro	CA CA				218 219	1,885		1,885	1,885	-	-	

Caribou 2	Large hydro	CA				223	3,086		3,086	3,086	-	-	
Cresta	Large hydro	CA				231	1,697		1,697	1,697	-	-	
Drum #1	Large hydro	CA				235	447		447	447	-	-	
Drum #2	Large hydro	CA				236	2,833		2,833	2,833	-	-	
Electra	Large hydro	CA				239	3,645		3,645	3,645	-	-	
Haas	Large hydro	CA				240	1,879		1,879	1,879	-	-	
James B Black	Large hydro	CA				249	3,492		3,492	3,492	-	-	
Kerckhoff #2 PH	Large hydro	CA				682	3,327		3,327	3,327	-	-	
Kings River	Large hydro	CA				254	821		821	821	-	-	
Pit 1	Large hydro	CA				265	1,163		1,163	1,163	-	-	
Pit 3	Large hydro	CA				266	1,222		1,222	1,222	-	-	
Pit 4	Large hydro	CA				267	2,984		2,984	2,984	-	-	
Pit 5	Large hydro	CA				268	5,162		5,162	5,162	-	-	
Pit 6	Large hydro	CA				269	2,282		2,282	2,282	-	-	
Pit 7	Large hydro	CA				270	2,390		2,390	2,390	-	-	
Poe	Large hydro	CA				272	3,592		3,592	3,592	-	-	
Rock Creek	Large hydro	CA				275	2,662		2,662	2,662	-	-	
Salt Springs	Large hydro	CA				279	1,378		1,378	1,378	-	-	
Stanislaus	Large hydro	CA				285	2,335		2,335	2,335	-	-	
Tiger Creek	Large hydro	CA				287	2,463		2,463	2,463	-	-	
NID-Chicago Park	Large hydro	CA			·	412	1,107		1,107	1,107	-	-	
Mid-C Hydro - Priest Rapids & Wanapum Dams (Grant County Pt	Large hydro	WA				3887	989		989	989	-	-	
PROCUREMENTS FROM ASSET-CONTROLLING SUPPLIERS													

											GHG Emissions		
Facility Name	Fuel Type	N/A	N/A	N/A	N/A	EIA ID	Gross MWh Procured	MWh Resold		Adjusted Net MWh Procured	Factor (in MT CO ₂ e/MWh)	GHG Emissions (in MT CO ₂ e)	N/A
Bonneville Power Administration (BPA) - ACS	Other					BPA			30,771	30,771	0.0160	492	
										-	#N/A		
										-	#N/A		
										-	#N/A		
END HOSE CTUED THAN DETAIL OAL SO	TOTAL .											•	

END USES OTHER THAN RETAIL SALES	NIVVN

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT SCHEDULE 2: RETIRED UNBUNDLED RECS For the Year Ending December 31, 2022 Calpine Energy Solutions, LLC CA Power Mix

INSTRUCTIONS: Enter information about retired unbundled RECs associated with this electricity portfolio. Insert additional rows as needed. All fields in white should be filled out. Fields in grey auto-populate as needed and should not be filled out.

		Total Retired U	nbundled RECs	112,058
RETIRED UNB	UNDLED RECS			
Facility Name	Fuel Type	State or Province	RPS ID	Total Retired (in MWh)
Bear Mountain Wind Park - Bear Mountain Wind Park	Wind	BC	61051A	56172
Campbell Hill - Campbell Hill	Wind	WY	61017A	1600
CED Lost Hills Solar, LLC - Fron ier Solar	Solar	CA	62516A	367
Dunlap I - Dunlap I	Wind	WY	61188A	1200
Foundation Cemex BMQ North - Foundation Cemex BMQ North	Wind	CA	62264A	978
Foundation Cemex BMQ South - Foundation Cemex BMQ South	Wind	CA	62265A	939
Foundation Cemex Madison - Cemex - Madison	Wind	CA	62252A	1058
Foundation Cemex River Plant - Foundation Cemex River Plant	Wind	CA	62262A	1446
Glenrock I - Glenrock I	Wind	WY	60805A	7640
High Plains - High Plains	Wind	WY	60899A	1800
Nine Mile HED - Nine Mile HED	Hydro	WA	60497A	856
Nine Mile HED 2 - Nine Mile HED 2	Hydro	WA	60497A	1,913
Rolling Hills - Rolling Hills	Wind	WY	60806A	1,600
RPUWD Cooley Pumping Station - Cooley - Riverside Public Utilities	Solar	CA	63073A	149
RPUWD Garner Pumping Station - Garner Well 7 - Riverside Public U ilities	Solar	CA	63072A	381
RPUWD Scheuer Wells - Riverside Public Utilities	Solar	CA	63074A	703
Three Peaks - Three Peaks	Solar	UT	63608A	10,656
Top of the World - Top of the World	Wind	WY	61199A	2,400
Total Energy Facility - TEF - GEN 1	Biomass & biowa	CA	60633A	1,912
Total Energy Facility - TEF - GEN 4	Biomass & biowa	CA	60633A	4,976
Total Energy Facility - TEF - GEN2	Biomass & biowa	CA	60633A	3,088
Total Energy Facility - TEF - GEN3	Biomass & biowa	CA	60633A	5,661
Weed Cogen - Weed Powerhouse	Biomass & biowa	CA	60501A	1,204
Wright Solar Park - Wright Solar Park	Solar	CA	62620A	3,359

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2022 POWER SOURCE DISCLOSURE ANNUAL REPORT SCHEDULE 3: POWER CONTENT LABEL DATA For the Year Ending December 31, 2022 Calpine Energy Solutions, LLC CA Power Mix

Instructions: No data input is needed on this schedule. Retail suppliers should use these auto-populated calculations to fill out their Power Content Labels.

	Adjusted Net Procured (MWh)	Percent of Total Retail Sales						
Renewable Procurements	1,239,168							
Biomass & Biowaste	73,308							
Geothermal	127,840							
Eligible Hydroelectric	11,512							
Solar	523,144							
Wind	503,364							
Coal	-	0.0%						
Large Hydroelectric	142,970							
Natural gas	-	0.0%						
Nuclear	-	0.0%						
Other	30,771							
Unspecified Power								
Total		100.0%						
Total Retail Sales (MWh)								
GHG Emissions Intensity (converted to lbs CO ₂ e/MWh) 744								
Percentage of Retail Sales Covered by Retired Unbundled RECs 2.0%								

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2022 POWER SOURCE DISCLOSURE ANNUAL REPORT ATTESTATION FORM

For the Year Ending December 31, 2022 Calpine Energy Solutions, LLC CA Power Mix

I, Greg Bass, Regulatory Director,

declare under penalty of perjury, that the information provided in this report is true and correct and that I, as an authorized agent of Calpine Energy Solutions, LLC, have authority to submit this report on the retail supplier's behalf. I further declare that all of the electricity claimed as specified purchases as shown in this report was sold once and only once to retail customers.

Name: Greg Bass

Representing (Retail Supplier): Calpine Energy Solutions, LLC

Signature:

Dated: 06/01/2023

Executed at: San Diego, CA