

**DOCKETED**

<b>Docket Number:</b>	24-PSDP-01
<b>Project Title:</b>	Power Source Disclosure Program - 2023
<b>TN #:</b>	258776
<b>Document Title:</b>	2023 Power Source Disclosure
<b>Description:</b>	Public and Redacted Power Source Disclosure Filing for Calpine Energy Solutions, LLC
<b>Filer:</b>	Bryan White
<b>Organization:</b>	Calpine Energy Solutions, LLC
<b>Submitter Role:</b>	Applicant
<b>Submission Date:</b>	8/30/2024 4:08:45 PM
<b>Docketed Date:</b>	8/30/2024

## 2023 POWER SOURCE DISCLOSURE ANNUAL REPORT For the Year Ending December 31, 2023

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

RETAIL SUPPLIER NAME	
Calpine Energy Solutions, LLC	
ELECTRICITY PORTFOLIO NAME	
CA Power Mix	
CONTACT INFORMATION	
NAME	Greg Bass
TITLE	Regulatory Director
MAILING ADDRESS	401 West A St, Suite 500
CITY, STATE, ZIP	San Diego, CA 92101
PHONE	619-684-8199
EMAIL	<a href="mailto:greg.bass@calpine.com">greg.bass@calpine.com</a>
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](mailto: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](mailto:PSDprogram@energy.ca.gov) or (916) 639-0573.

**2023 POWER SOURCE DISCLOSURE ANNUAL REPORT**  
**SCHEDULE 1: PROCUREMENTS AND RETAIL SALES**  
**For the Year Ending December 31, 2023**  
**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)	2,651,976
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	2,651,976
GHG Emissions (excludes grandfathered emissions)	1,767,015
GHG Emissions Intensity (in MT CO <sub>2</sub> e/MWh)	0.2714

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 <sub>2</sub> e/MWh)	GHG Emissions (in MT CO <sub>2</sub> e)	N/A	
A. G. Wishon Powerhouse - A. G. Wishon Powerh	Eligible hydro	CA	W344	60032A		293	3	-	3	3	-	-		
Agua Caliente Solar - Block 1	Solar	AZ	W2427	60894A		57373	34	-	34	34	-	-		
Agua Caliente Solar - Block 10	Solar	AZ	W3621	60894A		57373	28	-	28	28	-	-		
Agua Caliente Solar - Block 11	Solar	AZ	W3829	60894A		57373	28	-	28	28	-	-		
Agua Caliente Solar - Block 12	Solar	AZ	W3953	60894A		57373	13	-	13	13	-	-		
Agua Caliente Solar - Block 2	Solar	AZ	W2576	60894A		57373	34	-	34	34	-	-		
Agua Caliente Solar - Block 3	Solar	AZ	W2668	60894A		57373	34	-	34	34	-	-		
Agua Caliente Solar - Block 4	Solar	AZ	W2782	60894A		57373	24	-	24	24	-	-		
Agua Caliente Solar - Block 5	Solar	AZ	W2838	60894A		57373	34	-	34	34	-	-		
Agua Caliente Solar - Block 6	Solar	AZ	W2844	60894A		57373	34	-	34	34	-	-		
Agua Caliente Solar - Block 7	Solar	AZ	W2925	60894A		57373	34	-	34	34	-	-		
Agua Caliente Solar - Block 8	Solar	AZ	W3240	60894A		57373	28	-	28	28	-	-		
Agua Caliente Solar - Block 9	Solar	AZ	W2812	60894A		57373	28	-	28	28	-	-		
Alamo Solar - Alamo Solar	Solar	CA	W4546	61453A		59469	17	-	17	17	-	-		
Antelope West Solar - Antelope West Solar	Solar	CA	W4322	61850A		58626	19	-	19	19	-	-		
Arlington Energy Center III, LLC - Arlington III	Solar	CA	W13876	64745A		64564	308,033	-	308,033	308,033	-	-		
Atwell Island - Atwell Island PV Solar Generating F	Solar	CA	W3159	60947A		59414	12	-	12	12	-	-		
AV Solar Ranch 1, LLC - Antelope Solar Ranch - E	Solar	CA	W3474	60790A		57378	31	-	31	31	-	-		
AV Solar Ranch 1, LLC - AVSR1 - Antelope Solar	Solar	CA	W4141	60790A		57378	51	-	51	51	-	-		
AV Solar Ranch 1, LLC - AVSR1 - Antelope Solar	Solar	CA	W2803	60790A		57378	30	-	30	30	-	-		
AV Solar Ranch 1, LLC - AVSR1 - Antelope Solar	Solar	CA	W3274	60790A		57378	34	-	34	34	-	-		
AV Solar Ranch 1, LLC - AVSR1 - Antelope Solar	Solar	CA	W3275	60790A		57378	21	-	21	21	-	-		
AV Solar Ranch 1, LLC - AVSR1 - Antelope Solar	Solar	CA	W3280	60790A		57378	17	-	17	17	-	-		
AV Solar Ranch 1, LLC - AVSR1 - Antelope Solar	Solar	CA	W3849	60790A		57378	57	-	57	57	-	-		
Bakersfield Solar - SKIC 20	Solar	CA	W4550	61558A		61117	9	-	9	9	-	-		
Bayshore Solar A - Big Sky Solar 6	Solar	CA	W5731	63133A		60481	12	-	12	12	-	-		
Bayshore Solar B - Big Sky Solar 7	Solar	CA	W5737	63134A		60474	14	-	14	14	-	-		
Bayshore Solar C - Big Sky Solar 8	Solar	CA	W5738	63135A		60475	14	-	14	14	-	-		
BigBeau Solar, LLC - Tropico Solar Big Beau - 3C	Solar	CA	W12105	62674A		64993	121,017	-	121,017	121,017	-	-		
BigBeau Solar, LLC - Tropico Solar Big Beau - SV	Solar	CA	W12106	62674A		64993	143,055	-	143,055	143,055	-	-		
Blackwell Solar - Blackwell Solar, LLC	Solar	CA	W4587	61892A		59524	5	-	5	5	-	-		
Blythe Solar 110, LLC - BLY110-B01 Block 1	Solar	CA	W4880	60878A		60093	100,079	-	100,079	100,079	-	-		
Blythe Solar 110, LLC - BLY110-B02 Block 02	Solar	CA	W4953	60878A		60093	94,931	-	94,931	94,931	-	-		
Blythe Solar 110, LLC - BLY110-B03 Block 03	Solar	CA	W4954	60878A		60093	74,818	-	74,818	74,818	-	-		
Buena Vista Energy Windfarm - Buena Vista Ener	Wind	CA	W165	60124A		56446	361	-	361	361	-	-		
CA Flats 150 - CA Flats 150	Solar	CA	W7112	62552A		60034	100	-	100	100	-	-		
Cabazon Wind Partners - Cabazon Wind Partners	Wind	CA	W834	60736A		60034	15,509	-	15,509	15,509	-	-		
Calabasas Gas-to-Energy Facility - CGTEF	Biomass & biow	CA	W1376	60866A		57163	33,088	-	33,088	33,088	0.0042	139		
California Valley Solar Ranch - Block1	Solar	CA	W2847	60603A		57439	20	-	20	20	-	-		
California Valley Solar Ranch - Block3	Solar	CA	W3111	60603A		57439	116	-	116	116	-	-		
California Valley Solar Ranch - Block4	Solar	CA	W3187	60603A		57439	37	-	37	37	-	-		
Cameron Ridge, LLC (III) - Cameron Ridge LLC (II	Wind	CA	W407	60392A		P367	20,865	-	20,865	20,865	-	-		
Cantua Solar Station - Cantua Solar Station	Solar	CA	W2580	61823A		57522	16	-	16	16	-	-		
Castanea Project, LLC	Solar	CA	W17671	65110A		63849	6,255	-	6,255	6,255	#N/A	-		

CED Corcoran - CED Corcoran	Solar	CA	W3408	60948A		58374	15	-	15	15	-	-
CED White River Solar - CED White River Solar	Solar	CA	W3406	60949A		58373	16	-	16	16	-	-
CID Solar - Corcoran Irrigation District - CID Solar	Solar	CA	W4227	62285A		59183	13	-	13	13	-	-
Clines Corners - Clines Corners Wind Farm LLC	Wind	NM	W12057	64716A	P368		10,345	-	10,345	10,345	-	-
Clines Corners B - Clines Corners Wind Farm LLC	Wind	NM	W12058	64716A	P368		42,300	-	42,300	42,300	-	-
Coleman Powerhouse - Coleman Powerhouse	Eligible hydro	CA	W347	60037A		227	20	-	20	20	-	-
Copper Mountain Solar 2 - CMS 2 (1)	Solar	NV	W2818	60990A		58017	37	-	37	37	-	-
Copper Mountain Solar 2 - CMS 2 (2)	Solar	NV	W2943	60990A		58017	32	-	32	32	-	-
Copper Mountain Solar 2 - CMS 2 (3)	Solar	NV	W3201	60990A		58017	32	-	32	32	-	-
Copper Mountain Solar 2 - CMS 2 (4)	Solar	NV	W4555	60990A		58017	33	-	33	33	-	-
Copper Mountain Solar 2 - CMS 2 (5)	Solar	NV	W4589	60990A		58017	33	-	33	33	-	-
Corona - MWD Corona	Eligible hydro	CA	W471	60622A		480	4,115	-	4,115	4,115	-	-
Cuyama Solar - Cuyama Solar	Solar	CA	W5611	61891A		60043	35	-	35	35	-	-
DESERT SUNLIGHT 300, LLC - DSL-BLK01 - 04	Solar	CA	W3793	61068A		57993	173	-	173	173	-	-
DESERT SUNLIGHT 300, LLC - DSL-BLK05 & 06	Solar	CA	W3798	61068A		57993	56	-	56	56	-	-
DESERT SUNLIGHT 300, LLC - DSL-BLK07 & 08	Solar	CA	W3800	61068A		57993	27	-	27	27	-	-
DESERT SUNLIGHT 300, LLC - DSL-BLK09	Solar	CA	W3801	61068A		57993	28	-	28	28	-	-
DESERT SUNLIGHT 300, LLC - DSL-BLK10 & 11	Solar	CA	W3783	61068A		57993	56	-	56	56	-	-
Desert Winds I - Desert Winds I	Wind	CA	W521	60397A	P4		4,482	-	4,482	4,482	-	-
Desert Winds II Pwr Purch Trst - Desert Winds II P	Wind	CA	W522	60422A	P5		12,008	-	12,008	12,008	-	-
Desert Winds III - Desert Winds III	Wind	CA	W523	60423A	P6		6,504	-	6,504	6,504	-	-
Duran Mesa LLC - Duran Mesa LLC	Wind	NM	W12070	64728A	P357		18,939	-	18,939	18,939	-	-
Dutch Flat No. 1 Powerhouse - Dutch Flat No. 1 P	Eligible hydro	CA	W352	60042A		237	77	-	77	77	-	-
Five Points Solar Station - Five Points Solar Statio	Solar	CA	W2201	61432A		57498	4	-	4	4	-	-
FPL Energy Montezuma Wind - FPL Energy Monte	Wind	CA	W1745	60543A		57201	16	-	16	16	-	-
Gates Solar Station - Gates Solar Station	Solar	CA	W3477	62353A		57892	14	-	14	14	-	-
GENESIS SOLAR, LLC - SGN2	Solar	CA	W3791	60605A		57394	73	-	73	73	-	-
Geysers Power Plant - Aidlin Power Plant	Geothermal	CA	W484	60115A		52158	571	-	571	571	0.0351	20
Geysers Power Plant - Calistoga Power Plant	Geothermal	CA	W486	60117A		50066	29,253	-	29,253	29,253	0.0351	1,027
Geysers Power Plant - Calpine Geothermal Unit 1	Geothermal	CA	W119	60025A		286	8,029	-	8,029	8,029	0.0351	282
Geysers Power Plant - Calpine Geothermal Unit 12	Geothermal	CA	W120	60004A		286	11,624	-	11,624	11,624	0.0351	408
Geysers Power Plant - Calpine Geothermal Unit 13	Geothermal	CA	W121	60005A		286	5,411	-	5,411	5,411	0.0351	190
Geysers Power Plant - Calpine Geothermal Unit 14	Geothermal	CA	W122	60026A		286	2,970	-	2,970	2,970	0.0351	104
Geysers Power Plant - Calpine Geothermal Unit 16	Geothermal	CA	W123	60006A		286	31,817	-	31,817	31,817	0.0351	1,117
Geysers Power Plant - Calpine Geothermal Unit 17	Geothermal	CA	W124	60007A		286	17,582	-	17,582	17,582	0.0351	617
Geysers Power Plant - Calpine Geothermal Unit 18	Geothermal	CA	W125	60008A		286	23,021	-	23,021	23,021	0.0351	808
Geysers Power Plant - Calpine Geothermal Unit 20	Geothermal	CA	W126	60009A		286	12,723	-	12,723	12,723	0.0351	447
Geysers Power Plant - Calpine Geothermal Unit 5	Geothermal	CA	W117	60002A		286	7,406	-	7,406	7,406	0.0351	260
Geysers Power Plant - Calpine Geothermal Unit 7	Geothermal	CA	W118	60003A		286	859	-	859	859	0.0351	30
Geysers Power Plant - Sonoma/Calpine Geysers	Geothermal	CA	W127	60010A		510	9,557	-	9,557	9,557	0.0351	335
Golden Hills A - Golden Hills A	Wind	CA	W4800	62804A		60049	120,025	-	120,025	120,025	-	-
Guernsey Solar Station - Guernsey Solar Station	Solar	CA	W3476	62354A		57891	8	-	8	8	-	-
Hat Creek No. 1 Powerhouse - Hat Creek No. 1 P	Eligible hydro	CA	W355	60045A		243	21	-	21	21	-	-
Hat Creek No. 2 Powerhouse - Hat Creek No. 2 P	Eligible hydro	CA	W356	60046A		244	27	-	27	27	-	-
Henrietta Solar Plant - Parrey, LLC	Solar	CA	W5056	61841A		58975	73	-	73	73	-	-
Huron Solar Station - Huron Solar Station	Solar	CA	W2579	61821A		57523	15	-	15	15	-	-
IP Oberon II, LLC	Solar	CA	W16649	64997A		65735	232,336	-	232,336	232,336	#N/A	
IP Oberon, LLC	Solar	CA	W16224	64818A		65734	11,576	-	11,576	11,576	#N/A	
Ivanpah - Unit 1	Solar	CA	W3189	62273A		57073	106	-	106	106	0.0596	6
Ivanpah - Unit 3	Solar	CA	W3190	62275A		57075	104	-	104	104	0.0596	6
Java Solar - Java Solar	Solar	CA	W13698	63137A	P386		9	-	9	9	-	-
Kansas - Kansas	Solar	CA	W4192	61263A		58985	13	-	13	13	-	-
Kent South - Kent South	Solar	CA	W4193	61262A		58991	12	-	12	12	-	-
Lake Mathews - MWD Lake Mathews	Eligible hydro	CA	W5510	60545A		6644	3,770	-	3,770	3,770	-	-
Lockhart Solar PV	Solar	CA	W15353	65108A		10444	97,976	-	97,976	97,976	0.0015	147
Lost Hills - Lost Hills Solar, LLC	Solar	CA	W4586	61893A		58712	15	-	15	15	-	-
Mammoth Pacific L. P. (MP1) - Mammoth Pacific L	Geothermal	CA	W417	60306A		10480	40	-	40	40	0.0702	3
Mega Hydro #1 (Clover Creek) - Mega Hydro #1 (C	Eligible hydro	CA	W623	60227A	P236		195	-	195	195	-	-
Mega Renewables (Bidwell Ditch) - Mega Renewa	Eligible hydro	CA	W625	60165A		10880	530	-	530	530	-	-
Mega Renewables (Hatchet Creek) - Mega Renew	Eligible hydro	CA	W626	60166A		10882	108	-	108	108	-	-
Mega Renewables (Roaring Creek) - Mega Renew	Eligible hydro	CA	W627	60167A		10881	144	-	144	144	-	-
Michael E. Bowler Memorial Solar Farm - Westlan	Solar	CA	W3963	61755A		58616	8	-	8	8	-	-
Midway Solar Farm I - Midway Solar Farm I	Solar	CA	W5367	61295A		60336	47	-	47	47	-	-
Mohave County Wind Farm LLC - White Hills	Wind	AZ	W10999	64321A		63114	125,978	-	125,978	125,978	-	-

Mojave Solar Project - Mojave Solar Project - Alpha	Solar	CA	W4255	60848A		57331	53	-	53	53	-	-
Mojave Solar Project - Mojave Solar Project - Beta	Solar	CA	W4450	60848A		57331	53	-	53	53	-	-
Montezuma Wind II - Nextera Energy Montezuma	Wind	CA	W2400	61345A		57701	34	-	34	34	-	-
Mustang Two Whirlaway - Mustang Two Whirlaway	Solar	CA	W9615	63730A		62015	4,777	-	4,777	4,777	-	-
MWD Foothill Feed - MWD Foothill Feed	Eligible hydro	CA	W5508	63682A		6645	19,633	-	19,633	19,633	-	-
Newcastle Powerhouse - Newcastle Powerhouse	Eligible hydro	CA	W364	60053A		632	1	-	1	1	-	-
North Sky River - North Sky River - Phase I	Wind	CA	W3206	61385A		58154	132	-	132	132	-	-
North Star Solar - North Star Solar, LLC	Solar	CA	W4629	61198A		58713	45	-	45	45	-	-
Oak Creek Wind Power, LLC - Oak Creek Wind Power	Wind	CA	W509	60429A		50754	6,774	-	6,774	6,774	-	-
Old River One - Old River One	Solar	CA	W4194	60853A		58986	11	-	11	11	-	-
Orion Solar I - Orion Solar I, LLC	Solar	CA	W3981	61570A		58718	9	-	9	9	-	-
Phoenix Powerhouse - Phoenix Powerhouse	Eligible hydro	CA	W366	60054A		264	3	-	3	3	-	-
Portal Ridge Solar C - Portal Ridge Solar C	Solar	CA	W5211	61684A		60311	8	-	8	8	-	-
Potrero Hills Energy Producers - Potrero Hills Energy Producers	Biomass & bioenergy	CA	W4867	63116A		59952	43	-	43	43	0.0021	0
RE Astoria 1 - RE Astoria 1	Solar	CA	W4930	62284A		59976	85	-	85	85	-	-
RE Slate 1 LLC - Stanton - Slate Stanford	Solar	CA	W12668	64917A	P360		129,991	-	129,991	129,991	-	-
Red Mountain - MWD Red Mountain	Eligible hydro	CA	W473	60625A		484	23,122	-	23,122	23,122	-	-
Rising Tree Wind Farm II LLC - Rising Tree Wind Farm II	Wind	CA	W4445	62426A		59235	14	-	14	14	-	-
Rock Creek - Rock Creek Unit 1	Eligible hydro	CA	W2643	62269A		275	10	-	10	10	-	-
Rock Creek - Rock Creek Unit 2	Eligible hydro	CA	W2644	62269A		10809	24	-	24	24	-	-
Rosamond I - West Solar - Solar Star California XL	Solar	CA	W5216	63166A		58498	140,687	-	140,687	140,687	-	-
San Dimas - MWD San Dimas	Eligible hydro	CA	W5515	60547A		6646	24,619	-	24,619	24,619	-	-
Sanborn Solar 1A - Sub Project S1 - Edwards Sanborn	Solar	CA	W12674	64741A		64929	98,047	-	98,047	98,047	-	-
Shafter Solar, LLC - Shafter Solar, LLC	Solar	CA	W4680	62325A		59408	3	-	3	3	-	-
Shiloh I Wind Project - Shiloh I Wind Project LLC	Wind	CA	W231	60488A		56362	5,300	-	5,300	5,300	-	-
Shiloh IV Wind Project, LLC - Shiloh IV Wind Project	Wind	CA	W2780	61617A		57725	51	-	51	51	-	-
Sierra Pacific Burney Facility - Sierra Pacific Industries	Biomass & bioenergy	CA	W667	60087A		50110	53	-	53	53	0.0092	0
Sierra Pacific Ind. (Lincoln) - Sierra Pacific Industries	Biomass & bioenergy	CA	W668	60088A		10144	38	-	38	38	0.0109	0
Sierra Pacific Ind. (Quincy) - Sierra Pacific Industries	Biomass & bioenergy	CA	W669	60089A		50112	111	-	111	111	0.0479	5
Sierra Pacific Sonora - Sierra Pacific Sonora	Biomass & bioenergy	CA	W852	60576A		54517	12	-	12	12	0.0733	1
South Powerhouse - South Powerhouse	Eligible hydro	CA	W370	60059A		280	8	-	8	8	-	-
Spaulding No. 1 Powerhouse - Spaulding No. 1 Powerhouse	Eligible hydro	CA	W371	60060A		281	16	-	16	16	-	-
Spaulding No. 2 Powerhouse - Spaulding No. 2 Powerhouse	Eligible hydro	CA	W372	60061A		282	8	-	8	8	-	-
Spaulding No. 3 Powerhouse - Spaulding No. 3 Powerhouse	Eligible hydro	CA	W373	60062A		283	6	-	6	6	-	-
SPI Anderson 2 - SPI Anderson 2	Biomass & bioenergy	CA	W4674	61146A		59658	76	-	76	76	0.0102	1
Spring Gap Powerhouse - Spring Gap Powerhouse	Eligible hydro	CA	W374	60063A		284	31	-	31	31	-	-
SPS Alpaugh 50 - SPS Alpaugh 50	Solar	CA	W2826	60945A		58003	25	-	25	25	-	-
SPS Alpaugh North - SPS Alpaugh North	Solar	CA	W2825	60946A		58002	7	-	7	7	-	-
Stockton Biomass - Stockton Biomass	Biomass & bioenergy	CA	W3540	60964A		54238	276	-	276	276	0.0289	8
Stroud Solar Station - Stroud Solar Station	Solar	CA	W2203	61434A		57497	11	-	11	11	-	-
Sunray 2- SEGS II - Sunray 2- SEGS II	Solar	CA	W466	62694A		10437	21	-	21	21	-	-
Sunshine Gas Producers - Sunshine Gas Producers	Biomass & bioenergy	CA	W4144	60815A		58429	90	-	90	90	0.0033	0
Tehachapi Wind Resource I - Tehachapi Wind Resource I	Wind	CA	W519	61467A		10191	175	-	175	175	-	-
Temescal - MWD Temescal	Eligible hydro	CA	W475	60621A		479	7,085	-	7,085	7,085	-	-
Topaz Solar Farms LLC - Topaz 10-16	Solar	CA	W3226	61698A		57695	171	-	171	171	-	-
Topaz Solar Farms LLC - Topaz 17 - 20	Solar	CA	W3227	61698A		57695	93	-	93	93	-	-
Topaz Solar Farms LLC - Topaz 1-9	Solar	CA	W3193	61698A		57695	236	-	236	236	-	-
Total Energy Facility - TEF - GEN 1	Biomass & bioenergy	CA	W866	60633A		10091	2,109	-	2,109	2,109	0.1508	318
Total Energy Facility - TEF - GEN 4	Biomass & bioenergy	CA	W3412	60633A		10091	1,884	-	1,884	1,884	0.1508	284
Total Energy Facility - TEF - GEN2	Biomass & bioenergy	CA	W867	60633A		10091	1,965	-	1,965	1,965	0.1508	296
Total Energy Facility - TEF - GEN3	Biomass & bioenergy	CA	W868	60633A		10091	1,884	-	1,884	1,884	0.1508	284
Vaca Dixon Solar Station - Vaca Dixon Solar Station	Solar	CA	W1455	60966A		57041	1	-	1	1	-	-
Vasco Winds - Vasco Winds	Wind	CA	W2401	61344A		57700	45	-	45	45	-	-
Victory Garden # 1 (Tehachapi) - Wind Stream Operations	Wind	CA	W499	60381A		50532	2,769	-	2,769	2,769	-	-
Victory Garden# 2 (Tehachapi) - Wind Stream Operations	Wind	CA	W500	60382A		50532	4,379	-	4,379	4,379	-	-
Victory Garden# 3 (Tehachapi) - Wind Stream Operations	Wind	CA	W501	60383A		50532	8,408	-	8,408	8,408	-	-
Volta No. 2 Powerhouse - Volta No. 2 Powerhouse	Eligible hydro	CA	W378	60067A		180	1	-	1	1	-	-
Voyager Wind 2 - Voyager Wind 2	Wind	CA	W7267	63686A		61582	2,867	-	2,867	2,867	-	-
West Gates Solar Station - West Gates Solar Station	Solar	CA	W3478	62352A		58206	8	-	8	8	-	-
West Point Powerhouse - West Point Powerhouse	Eligible hydro	CA	W379	60068A		291	23	-	23	23	-	-
Western Antelope Blue Sky Ranch A - WABSRA	Solar	CA	W4264	61517A		58626	14	-	14	14	-	-
Westlands Almond, LLC	Solar	CA	W16975	64126A		58616	15,496	-	15,496	15,496	-	-
Westside Solar Station - Westside Solar Station	Solar	CA	W2202	61433A		57499	6	-	6	6	-	-
Whitewater Hill Wind Partners - Whitewater Hill Wind Partners	Wind	CA	W835	60737A		56012	15,651	-	15,651	15,651	-	-

Wise No. 1 Powerhouse - Wise No. 1 Powerhouse	Eligible hydro	CA	W380	60069A		292	24	-	24	24	-	-
Wright Solar Park - Wright Solar Park	Solar	CA	W8785	62620A		59525	8,108	-	8,108	8,108	-	-
Yorba Linda - MWD Yorba Linda	Eligible hydro	CA	W5516	60548A		6647	3,868	-	3,868	3,868	-	-
											#N/A	

**FIRMED-AND-SHAPED IMPORTS**

Facility Name	Fuel Type	State or Province	WREGIS ID	RPS ID	EIA ID of REC Source	EIA ID of Substitute Power	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO <sub>2</sub> e/MWh)	GHG Emissions (in MT CO <sub>2</sub> e)	Eligible for Grandfathered Emissions?
American Falls Solar II, LLC - American Falls Solar	Solar	ID	W5375	63450A	60011	Unspecified	942	-	942	942	0.4280	403	No
American Falls Solar, LLC - American Falls Solar	Solar	ID	W5376	63451A	60012	Unspecified	1,146	-	1,146	1,146	0.4280	490	No
Elkhorn Valley Wind Farm - Elkhorn Valley Wind F	Wind	OR	W186	61034A	56623	Unspecified	51,093	-	51,093	51,093	0.4280	21,868	No
Grand View 2 West - Grand View 2 West	Solar	ID	W5070	61595A	60068	Unspecified	11,280	-	11,280	11,280	0.4280	4,828	No
Grand View 5 East - Grand View 5 East	Solar	ID	W5069	61595A	P207	Unspecified	1,014	-	1,014	1,014	0.4280	434	No
High Mesa - High Mesa	Wind	ID	W3391	62361A	58019	Unspecified	14,163	-	14,163	14,163	0.4280	6,062	No
ID Solar 1 - ID Solar 1, LLC	Solar	ID	W5076	63560A	60445	Unspecified	1,870	-	1,870	1,870	0.4280	800	No
Murphy Flat - Murphy Flat Power, LLC	Solar	ID	W5395	63449A	60009	Unspecified	1,510	-	1,510	1,510	0.4280	646	No
Neal Hot Springs Unit #1 - Neal Hot Springs Geoth	Geothermal	OR	W3155	62427A	58022	Unspecified	19,430	-	19,430	19,430	0.4280	8,316	No
Orchard Ranch Solar, LLC - Orchard Ranch Solar	Solar	ID	W5373	63448A	60010	Unspecified	834	-	834	834	0.4280	357	No
Rockland Wind Farm - Rockland Wind Farm	Wind	ID	W2445	61107A	57766	Unspecified	149,293	-	149,293	149,293	0.4280	63,897	No
											#N/A		

**SPECIFIED NON-RENEWABLE PROCUREMENTS**

Facility Name	Fuel Type	State or Province	N/A	N/A	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO <sub>2</sub> e/MWh)	GHG Emissions (in MT CO <sub>2</sub> e)	N/A
Balch #1 PH	Large hydro	CA				217	2,075	-	2,075	2,075	-	-	
Balch #2 PH	Large hydro	CA				218	5,419	-	5,419	5,419	-	-	
Belden	Large hydro	CA				219	2,620	-	2,620	2,620	-	-	
Buck Creek	Large hydro	CA				220	808	-	808	808	-	-	
Butt Valley	Large hydro	CA				221	1,640	-	1,640	1,640	-	-	
Caribou 1	Large hydro	CA				222	2,178	-	2,178	2,178	-	-	
Caribou 2	Large hydro	CA				223	4,912	-	4,912	4,912	-	-	
Cresta	Large hydro	CA				231	1,323	-	1,323	1,323	-	-	
Drum #1	Large hydro	CA				235	996	-	996	996	-	-	
Drum #2	Large hydro	CA				236	3,017	-	3,017	3,017	-	-	
Electra	Large hydro	CA				239	4,439	-	4,439	4,439	-	-	
Haas	Large hydro	CA				240	5,568	-	5,568	5,568	-	-	
James B Black	Large hydro	CA				249	5,198	-	5,198	5,198	-	-	
Kerckhoff #2 PH	Large hydro	CA				682	5,922	-	5,922	5,922	-	-	
Kings River	Large hydro	CA				254	2,298	-	2,298	2,298	-	-	
Pit 1	Large hydro	CA				265	2,190	-	2,190	2,190	-	-	
Pit 3	Large hydro	CA				266	3,883	-	3,883	3,883	-	-	
Pit 4	Large hydro	CA				267	4,560	-	4,560	4,560	-	-	
Pit 5	Large hydro	CA				268	7,870	-	7,870	7,870	-	-	
Pit 6	Large hydro	CA				269	2,896	-	2,896	2,896	-	-	
Pit 7	Large hydro	CA				270	3,045	-	3,045	3,045	-	-	
Poe	Large hydro	CA				272	7,339	-	7,339	7,339	-	-	
Rock Creek	Large hydro	CA				275	4,901	-	4,901	4,901	-	-	
Salt Springs	Large hydro	CA				279	2,266	-	2,266	2,266	-	-	
Stanislaus	Large hydro	CA				285	3,746	-	3,746	3,746	-	-	
Tiger Creek	Large hydro	CA				287	2,753	-	2,753	2,753	-	-	
NID-Chicago Park	Large hydro	CA				412	1,508	-	1,508	1,508	-	-	
											#N/A		

**PROCUREMENTS FROM ASSET-CONTROLLING SUPPLIERS**

Facility Name	Fuel Type	N/A	N/A	N/A	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO <sub>2</sub> e/MWh)	GHG Emissions (in MT CO <sub>2</sub> e)	N/A
											#N/A		
											#N/A		
											#N/A		
											#N/A		

<b>END USES OTHER THAN RETAIL SALES</b>	<b>MWh</b>

**2023 POWER SOURCE DISCLOSURE ANNUAL REPORT**  
**SCHEDULE 2: RETIRED UNBUNDLED RECS**  
**For the Year Ending December 31, 2023**  
**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 Unbundled RECs** 263,933

RETIRED UNBUNDLED RECS				
Facility Name	Fuel Type	State or Province	RPS ID	Total Retired (in MWh)
Apache Solar - Apache Solar	Solar	AZ	63454A	3462
Bear Mountain Wind Park - Bear Mountain Wind	Wind	BC	61051A	33013
Calabasas Gas-to-Energy Facility - CGTEF	Biomass & biowa	CA	60866A	64
Campbell Hill - Campbell Hill	Wind	WY	61017A	500
Cape Scott Wind - Cape Scott Wind	Wind	BC	60600A	45
Carousel Wind - Carousel Wind	Wind	CO	63340A	24278
Cedar Creek - Cedar Creek	Wind	CO	60822A	500
Dunlap I - Dunlap I	Wind	WY	61188A	300
Foundation Cemex BMQ North - Foundation C	Wind	CA	62264A	800
Foundation Cemex BMQ South - Foundation C	Wind	CA	62265A	775
Foundation Cemex Madison - Cemex - Madis	Wind	CA	62252A	479
Foundation Cemex River Plant - Foundation C	Wind	CA	62262A	1589
Grand View 2 West - Grand View 2 West	Solar	ID	61595A	13007
Horseshoe Bend Wind Park - Horseshoe Ben	Wind	MT	61672A	18559
Klondike III - Klondike Wind Power III LLC	Wind	OR	60602A	526
Limon Wind III, LLC - Limon Wind III, LLC	Wind	CO	62859A	6296
Meyers Falls Hydroelectric Project - Unit A	Hydro	WA	64563A	705
Meyers Falls Hydroelectric Project - Unit B	Hydro	WA	64563A	705
Moose Lake Wind - Moose Lake Wind	Wind	BC	64287A	3,938
Mora Drop - Mora Drop	Hydro	ID	64306A	1,667
Nine Mile HED - Nine Mile HED	Hydro	WA	60497A	1,842
Nine Mile HED 2 - Nine Mile HED 2	Hydro	WA	60497A	2,886
Northern Colorado Wind II - NCWE II	Wind	CO	60897A	3
Pennask Wind Farm - Pennask Wind Farm	Wind	BC	64015A	6,358
Post Falls HED - Post Falls 4	Hydro	ID	60498A	3,003
Quality Wind - Quality Wind	Wind	BC	62247A	28,945
Shinish Creek Wind Farm - Shinish Creek Win	Wind	BC	64041A	9,569
Three Peaks - Three Peaks	Solar	UT	63608A	36,910
Top of the World - Top of the World	Wind	WY	61199A	600
Total Energy Facility - TEF - GEN 1	Biomass & biowa	CA	60633A	9,016
Total Energy Facility - TEF - GEN 4	Biomass & biowa	CA	60633A	16,108
Total Energy Facility - TEF - GEN2	Biomass & biowa	CA	60633A	16,041
Total Energy Facility - TEF - GEN3	Biomass & biowa	CA	60633A	11,406
Weed Cogen - Weed Powerhouse Onsite Loa	Wood and Wood	CA	61199A	10,038

**2023 POWER SOURCE DISCLOSURE ANNUAL REPORT**  
**SCHEDULE 3: POWER CONTENT LABEL DATA**  
**For the Year Ending December 31, 2023**  
**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
<b>Renewable Procurements</b>	2,556,604	
Biomass & Biowaste	41,629	
Geothermal	180,293	
Eligible Hydroelectric	87,492	
Solar	1,608,710	
Wind	638,480	
Coal	-	0.0%
Large Hydroelectric	95,372	
Natural gas	-	0.0%
Nuclear	-	0.0%
Other	-	0.0%
Unspecified Power		
<b>Total</b>		<b>100.0%</b>

<b>Total Retail Sales (MWh)</b>	
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<b>GHG Emissions Intensity (converted to lbs CO<sub>2</sub>e/MWh)</b>	<b>598</b>
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<b>Percentage of Retail Sales Covered by Retired Unbundled RECs</b>	<b>4.1%</b>
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**2023 POWER SOURCE DISCLOSURE ANNUAL REPORT  
ATTESTATION FORM  
For the Year Ending December 31, 2023  
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: /s/ Greg Bass / bw**

**Dated: 08/30/2024**

**Executed at: San Diego, CA**