

|SDG&E/SoCalGas

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The electric generation forecast is based on an analysis of the plant's operation in the western electric market using the PLEXOS model from Energy Exemplar. This workpapers include both the input assumptions and results.

Workpapers List

California Energy Demand Forecast

California Energy Commission's (CEC's) California Energy Demand Forecast, 2021 – 2035 Managed Forecast, adopted January 2022. SoCalGas selected the Mid Energy Demand scenario with Additional Achievable Energy Efficiency (AAEE) Scenario 3 and Additional Achievable Fuel Switching (AAFS) Scenario 2.

See Schedule 1 - 3 for the summary of peak and energy data.

New California Resource Assumptions

The base case assumed the resource additions in 2021 Preferred System Plan as a guideline. See Schedule 4.

Green House Gas (GHG) Compliance Costs

See Schedule 5.

Once Through Cooling (OTC) Compliance Schedule

See Schedule 6.

Annual Gas Demand Throughput Forecasts

See Schedule 7.

Peak Day Forecasts

See Schedule 8.

Schedule 3: Form 1.1c - STATEWIDE

California Energy Demand 2021-2035 Forecast - Mid Baseline - AAEE Scenario 3 - AAFS Scenario 2
Electricity Deliveries to End Users by Agency (GWh)

Planning Area	Agency	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Average Annual Growth (2021-2035)
	Pasadena Water and Power	989	968	984	994	1,002	1,009	1,015	1,024	1,031	1,039	1,047	1,056	1,062	1,069	1,075	1,081	0.80%
	Rancho Cucamonga Municipal Utility	73	72	74	75	75	76	76	77	77	78	78	79	80	80	81	82	0.92%
	Riverside, City of	2,145	2,100	2,123	2,142	2,160	2,173	2,184	2,201	2,214	2,229	2,242	2,257	2,267	2,278	2,289	2,299	0.65%
	Vernon, City of	1,120	1,110	1,119	1,123	1,134	1,146	1,157	1,169	1,180	1,192	1,204	1,216	1,228	1,241	1,253	1,266	0.94%
	Victorville Municipal Utility Services	102	102	102	102	103	103	103	103	103	103	103	103	103	103	103	103	0.08%
	California Department of Water Resources	2,206	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	0.00%
	Metropolitan Water District of Southern California	1,630	1,715	1,715	1,715	1,715	1,715	1,715	1,715	1,715	1,715	1,715	1,715	1,715	1,715	1,715	1,715	0.00%
SCE Total		95,227	94,638	95,570	96,329	97,094	97,560	98,005	98,645	99,106	99,626	100,083	100,637	100,972	101,365	101,722	102,081	0.54%
SDG&E	San Diego Gas & Electric Company (Bundled)	13,999	10,463	7,275	4,441	3,814	3,806	3,806	3,809	3,809	3,822	3,838	3,861	3,878	3,900	3,917	3,930	-6.76%
	San Diego Gas & Electric Company (Direct Access)	3,391	3,940	3,940	3,940	3,940	3,940	3,940	3,940	3,940	3,940	3,940	3,940	3,940	3,940	3,940	3,940	0.00%
	CCA - Clean Energy Alliance	0	394	624	1,253	1,453	1,461	1,468	1,474	1,481	1,489	1,499	1,511	1,520	1,530	1,538	1,547	10.27%
	CCA - Solana Energy Alliance	57																
	CCA - San Diego Community Power	0	2,008	5,197	7,422	7,932	7,979	8,023	8,065	8,108	8,154	8,207	8,274	8,325	8,382	8,427	8,477	10.83%
SDG&E Total		17,447	16,805	17,036	17,056	17,139	17,186	17,236	17,289	17,338	17,405	17,484	17,586	17,663	17,752	17,822	17,894	0.45%
Northern California Non-California ISO (NCNC)	Sacramento Municipal Utility District	10,456	10,302	10,418	10,500	10,574	10,635	10,695	10,768	10,854	10,956	11,062	11,165	11,258	11,334	11,386	11,427	0.74%
	Modesto Irrigation District	2,587	2,598	2,620	2,634	2,646	2,654	2,663	2,673	2,683	2,690	2,694	2,689	2,691	2,693	2,692	2,688	0.24%
	Roseville Electric	1,150	1,155	1,165	1,171	1,176	1,180	1,184	1,188	1,192	1,196	1,198	1,195	1,196	1,197	1,197	1,195	0.24%
	Redding Electric Utility	707	710	717	720	723	726	728	731	733	735	737	735	736	736	736	735	0.24%
	Shasta Lake, City of	209	210	211	213	214	215	216	217	217	217	217	217	217	217	217	217	0.24%
	USBR WAPA Central Valley Project	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	0.00%
	Turlock Irrigation District	2,213	2,223	2,242	2,253	2,263	2,271	2,278	2,286	2,295	2,301	2,305	2,301	2,302	2,304	2,303	2,300	0.24%
	Merced Irrigation District	514	516	520	523	525	527	529	530	532	534	535	534	534	535	534	534	0.24%
NCNC Total		18,126	18,003	18,183	18,303	18,410	18,496	18,580	18,681	18,796	18,917	19,037	19,126	19,225	19,306	19,354	19,385	0.53%
LADWP	Los Angeles Department of Water and Power	20,941	20,534	20,711	20,734	20,700	20,671	20,649	20,719	20,835	21,038	21,288	21,587	21,884	22,189	22,500	22,818	0.76%
Burbank/Glendale (BUGL)	Burbank Water and Power	995	994	1,019	1,029	1,035	1,040	1,044	1,050	1,057	1,067	1,078	1,091	1,101	1,110	1,120	1,131	0.92%
	Glendale Water and Power	983	977	995	1,003	1,010	1,014	1,018	1,024	1,031	1,040	1,051	1,064	1,072	1,081	1,089	1,099	0.84%
BUGL Total		1,978	1,972	2,014	2,032	2,045	2,054	2,063	2,073	2,088	2,108	2,129	2,154	2,173	2,191	2,210	2,229	0.88%
IID	Imperial Irrigation District	3,512	3,497	3,522	3,536	3,552	3,566	3,584	3,601	3,618	3,627	3,634	3,634	3,632	3,628	3,618	3,604	0.22%
VEA (CA Territory)	Valley Electric Association, Inc.	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	0.02%
OTHER Total	Liberty Utilities	554	543	548	552	556	559	562	566	569	572	576	580	584	588	591	595	0.66%
	Needles, City of	61	60	61	61	62	62	62	63	63	64	64	64	65	65	66	66	0.66%
	PacifiCorp	762	747	755	760	765	770	774	779	783	788	793	799	804	809	814	819	0.66%
	Surprise Valley Electric Cooperative	112	110	111	112	112	113	114	114	115	116	117	117	118	119	120	120	0.66%
	Truckee Donner Public Utility District	159	156	158	159	160	161	162	163	164	165	166	167	168	169	170	171	0.66%
OTHER Total		1,717	1,682	1,700	1,712	1,724	1,734	1,743	1,755	1,764	1,775	1,786	1,799	1,810	1,822	1,833	1,844	0.66%
STATEWIDE Total		248,363	243,357	245,911	247,617	249,419	250,764	252,171	253,806	255,118	256,710	258,355	260,280	261,824	263,514	265,112	266,784	0.66%
Total Pumping Load		6,365	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	0.00%
STATEWIDE Total Excluding Pumping		241,999	234,593	237,147	238,853	240,655	242,001	243,407	245,043	246,354	247,946	249,592	251,517	253,060	254,750	256,348	258,021	0.68%

This table includes retail sales and other deliveries only measured at the customer level. Losses and consumption served by self-generation are excluded. Table developed based on actual 2019 data.

Table includes sales from entities outside of California control area. Thus, STATEWIDE Total in row 105 is higher than total given in STATEWIDE Form 1.1b.

Schedule 4
New Resources in California (Cumulative MW)

Year	Biogas & Biomass	Geothermal	Solar PV/Thermal	Wind	4-hr Energy Storage	8-hr Energy Storage	Demand Response	Total
2022	34	14	3,094	1,719	2,565	-	151	7,577
2023	65	114	6,549	1,741	4,604	-	151	13,224
2024	83	114	7,750	2,071	10,617	-	353	20,988
2025	107	114	11,000	3,553	12,553	-	441	27,768
2026	107	184	11,000	3,553	12,553	196	441	28,034
2027	107	184	11,000	3,553	12,553	196	441	28,034
2028	134	584	11,397	3,553	13,609	1,000	441	30,718

Schedule 5
GHG Compliance Cost

Year	Nominal \$/Ton
2022	\$ 24.92
2023	\$ 27.93
2024	\$ 31.31
2025	\$ 35.09
2026	\$ 39.33
2027	\$ 44.08
2028	\$ 49.40

Note: CEC 2021 IEPR, Mid-Price scenario.

Schedule 6 OTC Schedule

Plants	SWRCB			2022 CGR Compliance Dates
	Existing Capacity (MW)	Approved Compliance Dates	Updated Compliance Dates	
Humboldt Bay (1,2)	163	12/31/2010	9/30/2010	Offline
South Bay	708	12/31/2011	12/31/2010	Offline
Potrero (3)	206	10/1/2011	2/28/2011	Offline
Huntington Beach (3,4)	452	12/31/2020	11/1/2012	Offline
Contra Costa (6,7)	674	12/31/2017	4/30/2013	Offline
Haynes (5,6)	535	12/31/2013	6/1/2013	Offline
San Onofre (2,3)	2,246	12/31/2022	6/7/2013	Offline
El Segundo (3)	335	12/31/2015	7/27/2013	Offline
Morro Bay (3,4)	650	12/31/2015	2/5/2014	Offline
El Segundo (4)	335	12/31/2015	12/31/2015	Offline
Scattergood (3)	450	12/31/2015	12/31/2015	Offline
Moss Landing (6,7)	1,510	12/31/2020	12/31/2016	Offline
Pittsburg (5,6,7)	1,307	12/31/2017	12/31/2016	Offline
Encina (1)	104	12/31/2017	3/1/2017	Offline
Mandalay (1,2)	430	12/31/2020	2/5/2018	Offline
Encina (2)	104	12/31/2017	12/31/2018	Offline
Encina (3)	110	12/31/2017	12/31/2018	Offline
Encina (4,5)	628	12/31/2017	12/31/2018	Offline
Redondo (7)	493	12/31/2020	10/1/2019	Offline
Alamitos (1,2,6)	848	12/31/2020	12/31/2019	Offline
Huntington Beach (1)	226	12/31/2020	12/31/2019	Offline
Moss Landing (1,2)	1,020	12/31/2020	12/31/2020	Complied Track 2
Redondo (5,6,8)	850	12/31/2020	12/31/2023	12/31/2023
Alamitos (3,4,5)	1,163	12/31/2020	12/31/2023	12/31/2023
Huntington Beach (2)	226	12/31/2020	12/31/2023	12/31/2023
Ormond Beach (1,2)	1,516	12/31/2020	12/31/2023	12/31/2023
Diablo Canyon (1)	1,120	12/31/2024	11/2/2024	11/2/2024
Scattergood (1,2)	367	12/31/2024	12/31/2029	12/31/2024
Diablo Canyon (2)	1,120	12/31/2024	8/26/2025	8/26/2025
Harbor (5)	229	12/31/2029	12/31/2029	12/31/2029
Haynes (1,2)	444	12/31/2029	12/31/2029	12/31/2029
Haynes (8)	575	12/31/2029	12/31/2029	12/31/2029

Based on March 14, 2022 SACCWIS Report.

Schedule 7
Annual Base Case EG Throughput (BCF)
EG Including Large Cogen

Year	SDG&E	SoCalGas	Total
2022	32	189	221
2023	28	188	216
2024	23	168	192
2025	21	157	178
2026	21	153	173
2027	20	148	168
2028	19	138	157

Schedule 8
Base Case Winter Coincidental Peak Day Demand (MMCFD)
EG (Including Large Cogen)

Year	SDG&E	SoCalGas	Total
2022	96	521	616
2023	83	512	595
2024	73	479	552
2025	77	449	526
2026	82	430	512
2027	82	455	536
2028	57	422	479