SORSOGON I ELECTRIC COOPERATIVE, INC.

POWER SUPPLY PROCUREMENT PLAN

In compliance with the Department of Energy's (DOE) Department Circular No. DC 2018-02-0003, "Adopting and Prescribing the Policy for the Competitive Selection Process in the Procurement by the Distribution Utilities of Power Supply Agreement for the Captive Market" or the Competitive Selection process (CSP) Policy, the Power Supply Procurement Plan (PSPP) Report is hereby created, pursuant to the Section 4 of the said Circular.

The PSPP refers to the DUs' plan for the acquisition of a variety of demand-side and supply-side resources to cost-effectively meet the electricity needs of its customers. The PSPP is an integral part of the Distribution Utilities' Distribution Development Plan (DDP) and must be submitted to the Department of Energy with supported Board Resolution and/or notarized Secretary's Certificate.

The Third-Party Bids and Awards Committee (TPBAC), Joint TPBAC or Third Party Auctioneer (TPA) shall submit to the DOE and in the case of Electric Cooperatives (ECs), through the National Electrification Administration (NEA) the following:

a. Power Supply Procurement Plan;
b. Distribution Impact Study/ Load Flow Analysis conducted that served as the basis of the Terms of Reference; and
c. Due diligence report of the existing generation plant

All Distribution Utilities' shall follow and submit the attached report to the Department of Energy for posting on the DOE CSP Portal. For ECs such reports shall be submitted to DOE and NEA. The NEA shall review the submitted report within ten (10) working days upon receipt prior to its submission to DOE for posting at the DOE CSP Portal.

The content of the PSSP shall be consistent with the DDP. The tables and graph format to be use on the PSPP report is provided on the following sheets. Further, the PSPP shall contain the following sections:

I. Table of Contents
II. Introduction
III. Energy and Demand Forecast (10 year historical and forecast)
IV. Energy Sales and Purchase
V. Daily Load Profile and Load Duration Curve
VI. Existing Contracts & Existing GenCos due diligence report
VII. Currently approved SAGR for Off-Grid ECs to be passed-on to consumers;
VIII. DU's Current Supply and Demand
IX. Distribution Impact Study
X. Schedule of Power Supply Procurement
XI. Timeline of the CSP

For inquiries, you may send it at doe.csp@gmail.com or you may contact us through telephone numbers (02) 840-2173 and (02) 479-2900 local 202.

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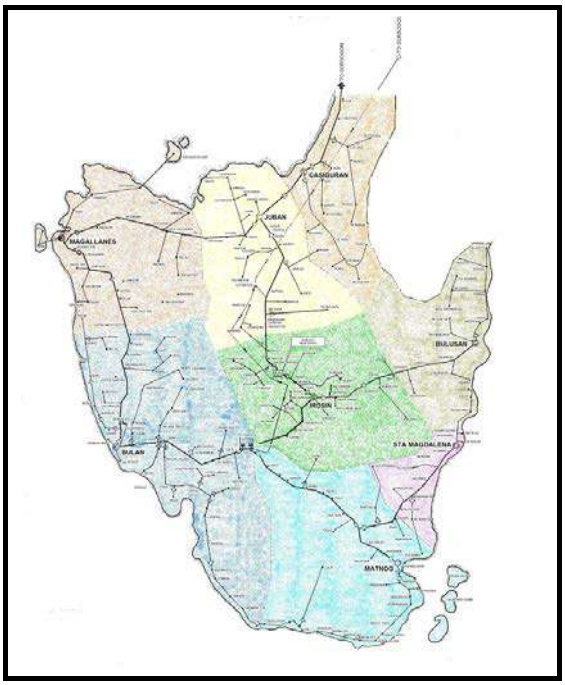
INTRODUCTION

DISTRIBUTION UTILITIES PROFILE

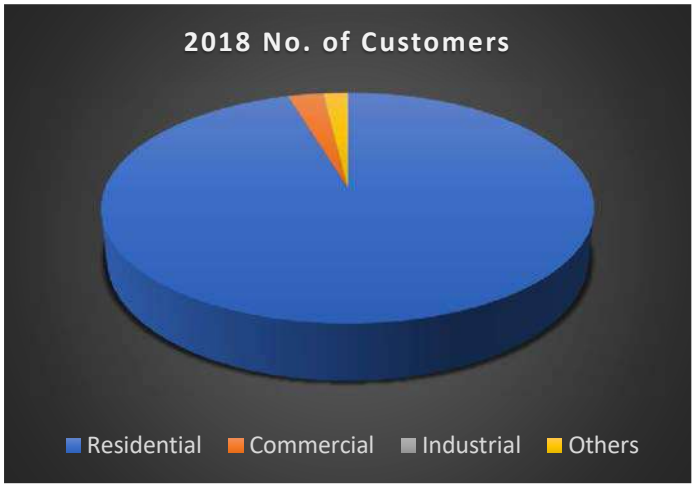
The coverage area of SORECO I is situated in the southeastern tip of Luzon covering 1,007.30 sq. kilometers. There are 8 municipalities in the coverage of SORECO I, two towns (Magallanes and Casiguran) are included within the first congressional district of Sorsogon. The other six towns were Bulan, Magdalena, Juban and Bulusan which are within the second congressional district of the province. Total barangays covered are 253 and 100% energized. As of December 2018, the household and total connections are 77,328 and 81,198 respectively corresponding to 88.52% energized of the potential household. The coverage area is predominantly rural. Farming and fishing are mainly the two means of livelihood of the people. Agri-business and Aqua-culture were the two main industries within the area coverage.

DU's Franchise MAP



Number of Customer Connections	ACTUAL	FORECAST									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Residential	63429	64023	65447	66947	68533	70204	71957	73786	75683	77638	79641
Commercial	1788	1886	1998	2116	2239	2369	2504	2645	2792	2945	3103
Industrial	51	53	55	59	63	68	74	82	90	101	113
Others	1258	1319	1399	1492	1596	1712	1840	1980	2131	2294	2469
Contestable (	None										
Total (Captive	66526	67281	68900	70613	72431	74353	76375	78492	80696	82977	85326

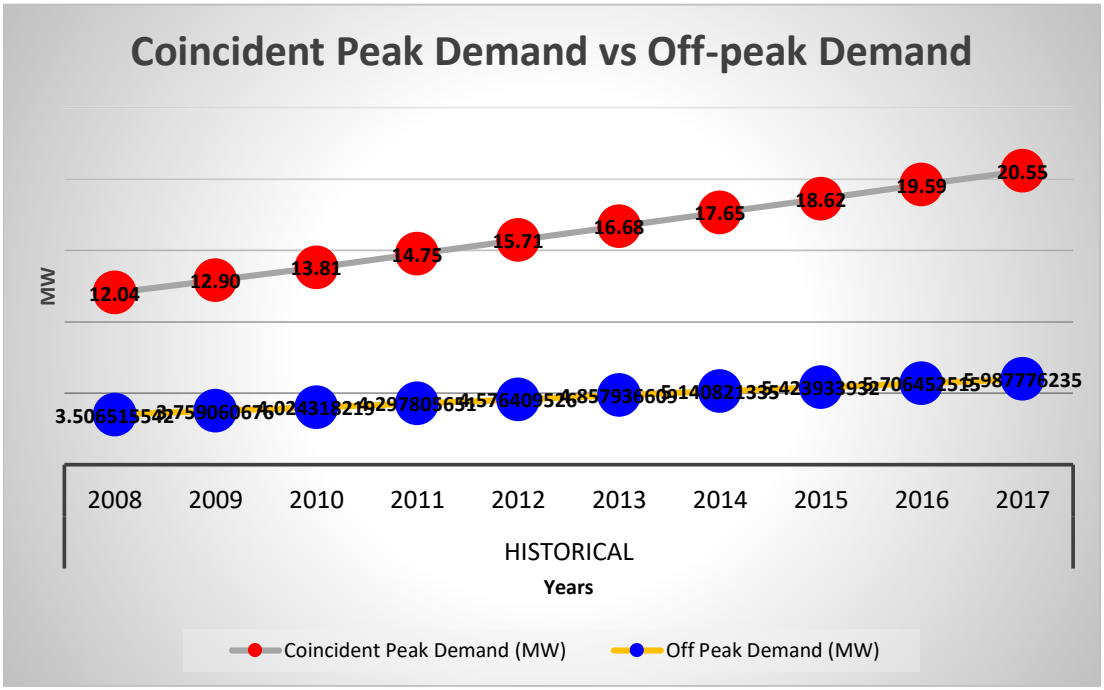
The increase in the demand of SORECO I is due to the rapid growth and industrialization of the towns of Bulan and Irosin which amenities will be rising soon like: LCC (mall), San Miguel Brewery plant, Jollibee stores, Sardines canning factory, Hong (mall), ice plant, Puregold and the Bicol regional fishport.



DEMAND

Demand	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Coincident Peak Demand (MW)	6.924	7.91	7.578	7.67	8.551	8.855	9.403	9.92	10.64	11.36
Off Peak Demand (MW)	1.845	2.107	2.019	2.043	2.278	2.359	2.505	2.643	2.923	3.207

Demand	FORECAST									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Coincident Peak Demand (MW)	12.04	12.90	13.81	14.75	15.71	16.68	17.65	18.62	19.59	20.55
Off Peak Demand (MW)	3.507	3.759	4.024	4.298	4.576	4.858	5.141	5.424	5.706	5.988

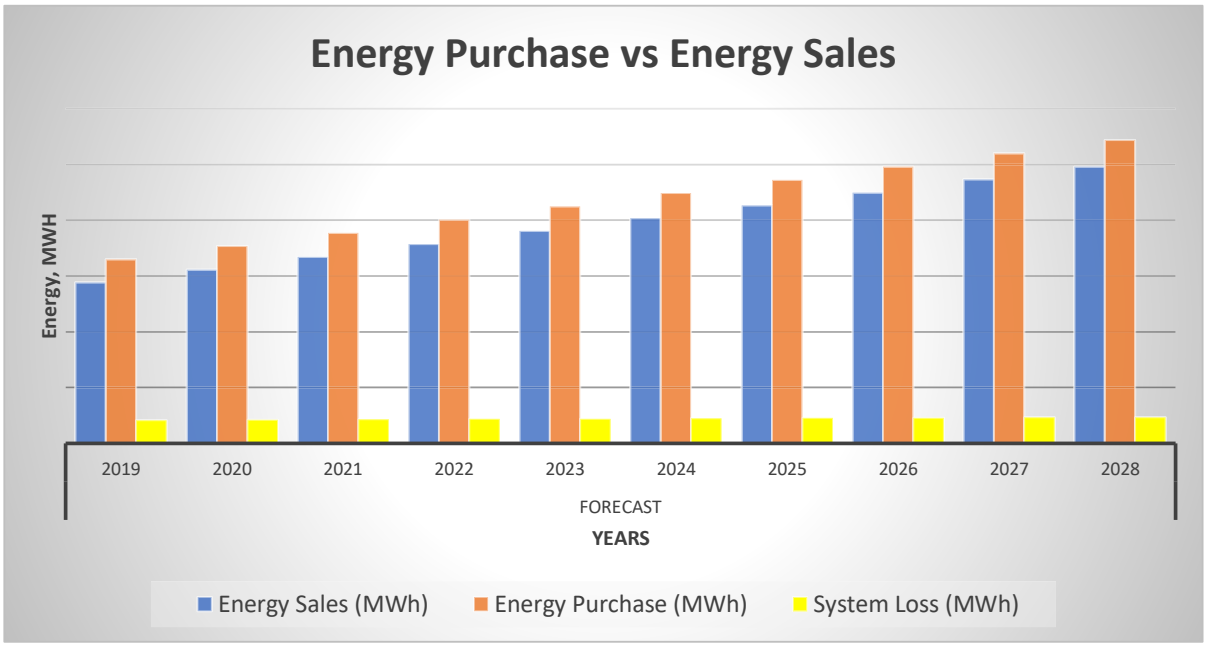


SORECO I's historical demand had a average increase of 6.8% yearly. On the other hand, the projected demand is seen to be increasing AGR of 6.1%.

ENERGY SALES AND PURCHASE

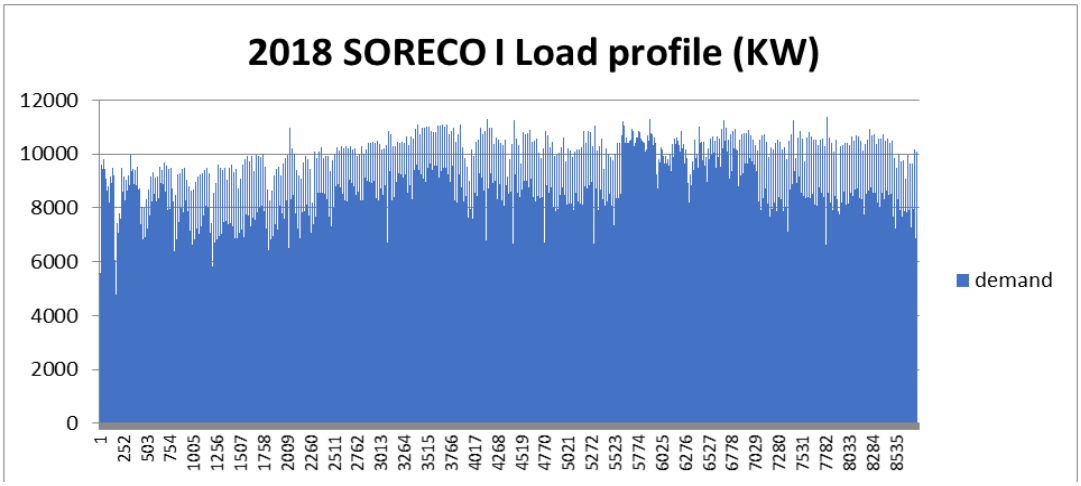
ENERGY SALES AND PURCHASE	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Energy Sales (MWh)	29201	32944	32275	33860	36036	36119	40517	43510	49660	54228
Energy Purchase (MWh)	33728	37838	36593	39424	41234	41455	46900	50245	56826	62276
System Loss (MWh)	4503	4889	4311	5562	5197	5335	6384	6736	7166.1	8048

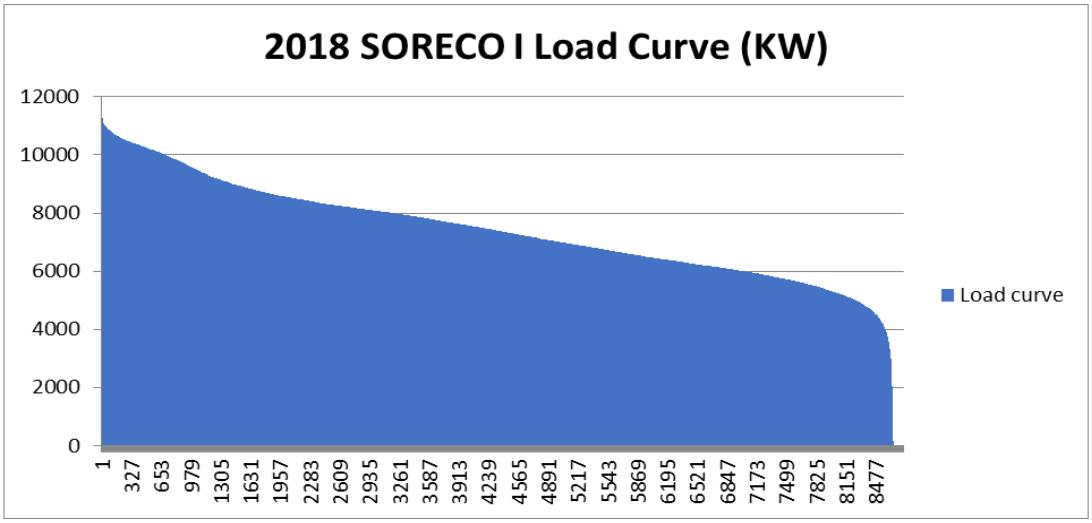
ENERGY SALES AND PURCHASE	FORECAST									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Energy Sales (MWh)	57810	62362	66933	71518	76115	80723	85344	89982	94638	99317
Energy Purchase (MWh)	66061	70799	75536	80274	85011	89749	94486	99224	103961	108699
System Loss (MWh)	8251	8437	8603	8755	8896	9026	9142	9242	9323.2	9381.4



Since, SORECO I's coverage area is predominantly rural and residential, the annual average growth rate on energy sales is only 6.2%. System loss is declining as shown from the graph above.

LOAD PROFILE AND LOAD DURATION CURVE



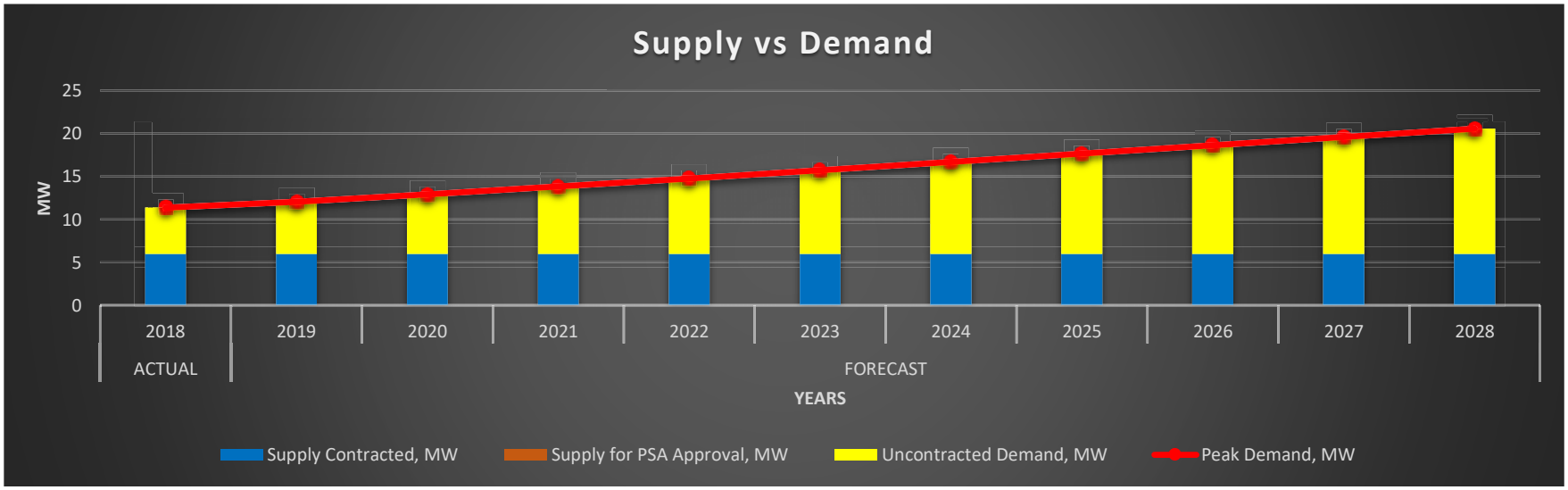


Brief highlight:

Base on the illustration above, SORECO I's base load is only 4MW, and the intermediate load is around 4-6MW while the peaking is 11MW.

MIXSUPPLY VS DEMAND AND THE OPTIMAL SUPPLY

Supply Demand	ACTUAL	FORECAST								
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Peak Demand, MW	**11.36178**	**12.03691**	**12.90383**	**13.81439**	**14.7532**	**15.70957**	**16.67598**	**17.64704**	**18.61889**	**19.5887**	**20.55441**
Supply Contracted, MW	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**
GN Power Mariveles Coal Plant Lt	6	6	6	6	6	6	6	6	6	6	6
Generation Plant Name 2											
Generation Plant Name 3											
Supply for PSA Approval, MW	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Generation Plant Name 1											
Generation Plant Name 2											
Generation Plant Name 3											
Uncontracted Demand, MW	**5.361777**	**6.036914**	**6.903833**	**7.81439**	**8.753198**	**9.709569**	**10.67598**	**11.64704**	**12.61889**	**13.5887**	**14.55441**



List of Existing Contracts and Details

Supply Contracted	Plant Owner/ Operator	Capacity Factor	PSA Effectivity (MM/YR)	PSA Expiration (MM/YR)	Contracted Capacity, MW	Contracted Energy, MWH	Base / Mid-merit / Peaking	Embedded/ Grid Connected	Utility-owned/ NPC/ IPP/ NPC-IPP	Status	Fuel Type	Installed Capacity (MW)	Net Dependable Capacity (MW)
GMCP	GMCP		Feb-14	Feb-29	6		Baseload	Grid Conne	IPP	Running	Coal	600	
GenCo 2													
GenCo 3													
GenCo 4													
GenCo 5													

SORECO I's existing contract with GN Power is just and reasonable for a coal powered generating plant. We noticed that GN Power stabilizes the electricity spot market. The cost of electricity became higher whenever they are out for maintenance. Thus, there is a need for us to look for a very short period contract which will cover the maintenance or outage period of the said plant. Otherwise, we are being exposed to the electricity spot market, thus, resulting to a very high cost of electricity to our member consumers.

DISTRIBUTION IMPACT STUDY

After years of complaints, irritations and resentment from the people of Bulan and Magallanes, last October 29,2018, the 5MVA power transformer was replaced by a 10 MVA power transformer. It is still temporarily installed at Sta. Teresita substation pending to the on-going construction of the 13 km 69 KV subtransmission lines from Sta. Teresita to Lajong, Bulan. Feeder 1 will be broken into 2 feeders to enable the system to be load centered and improved the quality of service being delivered to the consumers of feeder 1. With the boom in the economy and the construction of the regional fish port at the municipality of Bulan, there are many businesses emerging and soon to emerge like canning industries, ice plant, department stores and other establishments which will require bulk energy. However, the main problem of SORECO I is being connected at the load end of the transmission line in the south. The whole province of Sorsogon is connected by the NGCP to a 50MVA substation together with portion from Albay. With the fast growing demand in the city and our own Bulan town, the 50MVA substation is not enough to handle our load demand. SORECO I distribution system is in compliant with the PDC and PEC.

SCHEDULE OF CSP

Base / mid-merit / peaking	For CSP		Proposed contract		Proposed schedule (MM/YYYY)						
	Demand (MW)	Energy (MWh)	Start Month and Year	End Month and Year	Publication of Invitation to Bid	Pre-bid Conference	Submission and Opening of Bids	Bid Evaluation	Awarding	PSA Signing	Joint Application to ERC
BASE	3		Mar 2020	Dec2020	Dec 27, 2019 & Jan. 3, 2020	Jan 10, 2020 & Jan. 16, 2020	Jan. 31, 2020	Jan. 31, 2020	Feb. 6, 2020	Feb. 13, 2020	Mar. 3, 2020
BASE	4		Jan 2021	Dec2021	Dec 27, 2019 & Jan. 3, 2020	Jan 10, 2020 & Jan. 16, 2020	Jan. 31, 2020	Jan. 31, 2020	Feb. 6, 2020	Feb. 13, 2020	Mar. 3, 2020
BASE	5		Jan 2022	Dec2023	Dec 27, 2019 & Jan. 3, 2020	Jan 10, 2020 & Jan. 16, 2020	Jan. 31, 2020	Jan. 31, 2020	Feb. 6, 2020	Feb. 13, 2020	Mar. 3, 2020
BASE	9		Jan 2023	Dec2038							

10 Year Monthly Data

Year	Forecast			Contracted and For PSA Approval Demand and Energy		Uncontracted Demand and Energy		Committed for CSP	
	Coincident Peak Demand (MW)	Off Peak Demand (MW)	Energy Requirement (MWh)	Demand (MW)	Energy (MWh)	Uncontracted Demand (MW)	Uncontracted Energy (MWh)	Demand (MW)	Energy (MWh)
2019									
Jan	10.54	3.53	4,726	6.00		4.54			
Feb	10.19	3.51	4,825	6.00		4.19			
Mar	11.63	3.79	4,641	6.00		5.63			
Apr	11.04	4.74	5,696	6.00		5.04			
May	11.77	3.90	6,083	6.00		5.77			
Jun	11.93	4.90	6,141	6.00		5.93			
Jul	11.94	5.29	5,614	6.00		5.94			
Aug	11.74	4.45	5,835	6.00		5.74			
Sep	11.94	4.32	5,573	6.00		5.94			
Oct	11.90	4.66	5,804	6.00		5.90			
Nov	12.04	4.09	5,625	6.00		6.04			
Dec	11.59	4.33	5,497	6.00		5.59			
2020									
Jan	11.30	3.79	5,065	6.00		5.30			
Feb	10.93	3.76	5,171	6.00		4.93			
Mar	12.47	4.06	4,973	6.00		6.47		3.00	
Apr	11.83	5.08	6,104	6.00		5.83		3.00	
May	12.62	4.18	6,520	6.00		6.62		3.00	
Jun	12.79	5.25	6,581	6.00		6.79		3.00	
Jul	12.80	5.67	6,016	6.00		6.80		3.00	
Aug	12.58	4.77	6,254	6.00		6.58		3.00	
Sep	12.80	4.63	5,973	6.00		6.80		3.00	
Oct	12.76	4.99	6,221	6.00		6.76		3.00	
Nov	12.90	4.38	6,028	6.00		6.90		3.00	
Dec	12.43	4.64	5,892	6.00		6.43		3.00	
2021									
Jan	12.10	4.05	5,404	6.00		6.10		4.00	
Feb	11.70	4.02	5,517	6.00		5.70		4.00	
Mar	13.35	4.35	5,306	6.00		7.35		4.00	
Apr	12.67	5.44	6,513	6.00		6.67		4.00	
May	13.51	4.47	6,956	6.00		7.51		4.00	
Jun	13.69	5.62	7,022	6.00		7.69		4.00	
Jul	13.70	6.07	6,419	6.00		7.70		4.00	
Aug	13.47	5.11	6,672	6.00		7.47		4.00	
Sep	13.70	4.96	6,373	6.00		7.70		4.00	
Oct	13.66	5.35	6,637	6.00		7.66		4.00	
Nov	13.81	4.69	6,432	6.00		7.81		4.00	
Dec	13.30	4.97	6,286	6.00		7.30		4.00	

2022									
Jan	12.94	4.33	5,743	6.00		6.94		5.00	
Feb	12.49	4.30	5,863	6.00		6.49		5.00	
Mar	14.25	4.64	5,639	6.00		8.25		5.00	
Apr	13.53	5.81	6,921	6.00		7.53		5.00	
May	14.43	4.78	7,392	6.00		8.43		5.00	
Jun	14.64	6.00	7,462	6.00		8.64		5.00	
Jul	14.63	6.49	6,821	6.00		8.63		5.00	
Aug	14.54	5.45	7,091	6.00		8.54		5.00	
Sep	14.64	5.29	6,773	6.00		8.64		5.00	
Oct	14.59	5.71	7,053	6.00		8.59		5.00	
Nov	14.75	5.01	6,835	6.00		8.75		5.00	
Dec	14.21	5.31	6,680	6.00		8.21		5.00	
2023									
Jan	13.78	4.61	6,082	6.00		7.78		5.00	
Feb	13.30	4.58	6,209	6.00		7.30		5.00	
Mar	15.18	4.95	5,972	6.00		9.18		5.00	
Apr	14.41	6.18	7,330	6.00		8.41		5.00	
May	15.36	5.08	7,829	6.00		9.36		5.00	
Jun	15.59	6.39	7,903	6.00		9.59		5.00	
Jul	15.58	6.91	7,224	6.00		9.58		5.00	
Aug	15.48	5.81	7,509	6.00		9.48		5.00	
Sep	15.59	5.64	7,172	6.00		9.59		5.00	
Oct	15.53	6.08	7,469	6.00		9.53		5.00	
Nov	15.71	5.34	7,238	6.00		9.71		5.00	
Dec	15.13	5.65	7,074	6.00		9.13		5.00	
2024									
Jan	14.63	4.89	6,421	6.00		8.63			
Feb	14.12	4.86	6,555	6.00		8.12			
Mar	16.11	5.25	6,305	6.00		10.11			
Apr	15.29	6.57	7,738	6.00		9.29			
May	16.31	5.40	8,265	6.00		10.31			
Jun	16.55	6.78	8,343	6.00		10.55			
Jul	16.54	7.33	7,627	6.00		10.54			
Aug	16.43	6.16	7,928	6.00		10.43			
Sep	16.55	5.98	7,572	6.00		10.55			
Oct	16.49	6.45	7,886	6.00		10.49			
Nov	16.68	5.66	7,642	6.00		10.68			
Dec	16.06	6.00	7,469	6.00		10.06			
2025									
Jan	15.48	5.18	6,760	6.00		9.48			
Feb	14.94	5.14	6,901	6.00		8.94			
Mar	17.05	5.56	6,637	6.00		11.05			
Apr	16.18	6.95	8,146	6.00		10.18			
May	17.26	5.71	8,701	6.00		11.26			
Jun	17.51	7.18	8,783	6.00		11.51			
Jul	17.50	7.76	8,029	6.00		11.50			
Aug	17.39	6.52	8,346	6.00		11.39			
Sep	17.51	6.33	7,972	6.00		11.51			
Oct	17.45	6.83	8,302	6.00		11.45			
Nov	17.65	5.99	8,045	6.00		11.65			
Dec	17.00	6.35	7,863	6.00		11.00			

2026									
Jan	16.33	5.46	7,099	6.00		10.33			
Feb	15.77	5.42	7,247	6.00		9.77			
Mar	17.99	5.86	6,970	6.00		11.99			
Apr	17.07	7.33	8,555	6.00		11.07			
May	18.21	6.03	9,137	6.00		12.21			
Jun	18.48	7.57	9,224	6.00		12.48			
Jul	18.47	8.19	8,432	6.00		12.47			
Aug	18.35	6.88	8,765	6.00		12.35			
Sep	18.48	6.68	8,371	6.00		12.48			
Oct	18.41	7.21	8,718	6.00		12.41			
Nov	18.62	6.32	8,448	6.00		12.62			
Dec	17.93	6.70	8,257	6.00		11.93			
2027									
Jan	17.18	5.75	7,438	6.00		11.18			
Feb	16.59	5.71	7,593	6.00		10.59			
Mar	18.92	6.17	7,303	6.00		12.92			
Apr	17.96	7.71	8,963	6.00		11.96			
May	19.15	6.34	9,574	6.00		13.15			
Jun	19.44	7.97	9,664	6.00		13.44			
Jul	19.43	8.61	8,834	6.00		13.43			
Aug	19.31	7.24	9,183	6.00		13.31			
Sep	19.44	7.03	8,771	6.00		13.44			
Oct	19.37	7.58	9,134	6.00		13.37			
Nov	19.59	6.65	8,852	6.00		13.59			
Dec	18.86	7.05	8,651	6.00		12.86			
2028									
Jan	18.03	6.03	7,777	6.00		12.03			
Feb	17.41	5.99	7,939	6.00		11.41			
Mar	19.86	6.47	7,636	6.00		13.86			
Apr	18.85	8.09	9,372	6.00		12.85			
May	20.10	6.65	10,010	6.00		14.10			
Jun	20.40	8.36	10,105	6.00		14.40			
Jul	20.39	9.04	9,237	6.00		14.39			
Aug	20.26	7.60	9,602	6.00		14.26			
Sep	20.40	7.37	9,171	6.00		14.40			
Oct	20.32	7.96	9,551	6.00		14.32			
Nov	20.55	6.98	9,255	6.00		14.55			
Dec	19.79	7.40	9,046	6.00		13.79			

10 Year Monthly Data

Year	Historical			Contracted and For PSA Approval Demand and Energy		Uncontracted Demand and Energy		Committed for CSP	
	Coincident Peak Demand (MW)	Off Peak Demand (MW)	Energy Requirement (MWh)	Demand (MW)	Energy (MWh)	Uncontracted Demand (MW)	Uncontracted Energy (MWh)	Demand (MW)	Energy (MWh)
2009									
Jan	6.65		2,420						
Feb	6.65		2,582						
Mar	6.70		2,621						
Apr	7.08		3,106						
May	7.18		2,734						
Jun	7.17		2,987						
Jul	6.93		2,880						
Aug	6.90		2,900						
Sep	7.04		2,937						
Oct	6.74		2,818						
Nov	7.09		3,003						
Dec	7.11		2,735						
2010									
Jan	7.14		2,751						
Feb	6.78		2,761						
Mar	7.48		2,586						
Apr	7.58		3,192						
May	7.89		3,574						
Jun	8.21		3,764						
Jul	8.19		3,276						
Aug	7.72		3,252						
Sep	7.54		3,219						
Oct	7.49		3,151						
Nov	7.66		3,175						
Dec	7.78		3,137						
2011									
Jan	7.54		2,890						
Feb	7.23		2,823						
Mar	6.91		2,514						
Apr	7.86		2,903						
May	7.70		3,075						
Jun	7.86		3,354						
Jul	7.68		3,181						
Aug	7.34		3,055						
Sep	7.60		3,306						
Oct	7.63		3,055						
Nov	7.69		3,245						
Dec	7.82		3,192						

2012									
Jan	7.90		3,214						
Feb	7.18		2,925						
Mar	7.31		2,921						
Apr	7.86		3,332						
May	7.96		3,533						
Jun	7.71		3,423						
Jul	7.93		3,104						
Aug	7.42		3,201						
Sep	7.52		3,268						
Oct	7.42		3,138						
Nov	7.48		3,270						
Dec	7.86		3,115						
2013									
Jan	7.71		2,986	6.00					
Feb	6.61		2,868	6.00					
Mar	7.15		2,772	6.00					
Apr	7.79		3,670	6.00					
May	8.87		3,934	6.00					
Jun	8.61		3,791	6.00					
Jul	8.33		3,529	6.00					
Aug	8.15		3,517	6.00					
Sep	8.24		3,647	6.00					
Oct	8.15		3,576	6.00					
Nov	8.18		3,426	6.00					
Dec	8.57		3,519	6.00					
2014									
Jan	8.23		3,103	6.00					
Feb	7.50		2,963	6.00					
Mar	7.81		2,873	6.00					
Apr	8.64		3,659	6.00					
May	9.07		4,116	6.00					
Jun	9.19		4,416	6.00					
Jul	8.73		2,530	6.00					
Aug	8.43		3,475	6.00					
Sep	8.67		3,512	6.00					
Oct	8.69		3,696	6.00					
Nov	8.66		3,840	6.00					
Dec	8.85		3,273	6.00					
2015									
Jan	8.81		3,285	6.00					
Feb	7.93		3,269	6.00					
Mar	8.40		3,272	6.00					
Apr	8.88		4,083	6.00					
May	9.24		4,158	6.00					
Jun	9.49		4,468	6.00					
Jul	9.61		4,094	6.00					
Aug	9.76		4,271	6.00					
Sep	9.70		4,474	6.00					
Oct	9.75		4,351	6.00					
Nov	9.75		4,498	6.00					
Dec	9.57		2,678	6.00					

2016									
Jan	5.28		1,814	6.00					
Feb	7.71		2,948	6.00					
Mar	8.69		3,481	6.00					
Apr	9.31		4,565	6.00					
May	9.87		4,878	6.00					
Jun	10.18		5,069	6.00					
Jul	10.11		4,508	6.00					
Aug	10.30		4,679	6.00					
Sep	10.28		4,977	6.00					
Oct	9.95		4,508	6.00					
Nov	9.91		4,478	6.00					
Dec	10.03		4,341	6.00					
2017									
Jan	8.79		3,238	6.00					
Feb	8.79		3,966	6.00					
Mar	9.19		3,960	6.00					
Apr	9.89		4,838	6.00					
May	10.57		5,176	6.00					
Jun	10.43		5,481	6.00					
Jul	10.16		4,918	6.00					
Aug	10.22		5,163	6.00					
Sep	10.34		5,282	6.00					
Oct	10.41		5,007	6.00					
Nov	10.26		5,087	6.00					
Dec	10.10		4,709	6.00					
2018									
Jan	9.95		4,456	6.00					
Feb	9.62		4,549	6.00					
Mar	10.98		4,375	6.00					
Apr	10.42		5,369	6.00					
May	11.11		5,735	6.00					
Jun	11.26		5,789	6.00					
Jul	11.27		5,292	6.00					
Aug	11.08		5,501	6.00					
Sep	11.27		5,254	6.00					
Oct	11.23		5,472	6.00					
Nov	11.36		5,303	6.00					
Dec	10.94		5,182	6.00					