Power Supply Procurement Plan [2021]

Agusan del Sur Electric Cooperative, Inc. [ASELCO]

Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	11.681	41,481.400	0.000	41,481.400	35,051.688	6,429.712	41%	0.00%	0.00%	15.50%
2001	11.598	46,322.878	0.000	46,322.878	38,684.951	7,637.927	46%	0.00%	0.00%	16.49%
2002	12.055	50,669.557	0.000	50,669.557	41,650.799	9,018.758	48%	0.00%	0.00%	17.80%
2003	13.769	56,448.995	0.000	56,448.995	47,004.211	9,444.784	47%	0.00%	0.00%	16.73%
2004	13.784	63,270.901	0.000	63,270.901	52,921.183	10,349.718	52%	0.00%	0.00%	16.36%
2005	14.344	64,055.467	0.000	64,055.467	54,039.951	10,015.516	51%	0.00%	0.00%	15.64%
2006	14.985	69,190.923	0.000	69,190.923	58,685.907	10,505.016	53%	0.00%	0.00%	15.18%
2007	16.365	75,049.537	0.000	75,049.537	64,208.520	10,841.017	52%	0.00%	0.00%	14.45%
2008	17.230	81,180.537	0.000	81,180.537	70,065.286	11,115.251	54%	0.00%	0.00%	13.69%
2009	19.336	92,732.609	0.000	92,732.609	79,915.623	12,816.986	55%	0.00%	0.00%	13.82%
2010	22.601	94,159.162	0.000	94,159.162	81,622.037	12,537.125	48%	0.00%	0.00%	13.31%
2011	20.898	121,419.866	0.000	121,419.866	108,290.849	13,129.017	66%	0.00%	0.00%	10.81%
2012	23.266	134,160.364	0.000	134,160.364	119,859.332	14,301.032	66%	0.00%	0.00%	10.66%
2013	27.127	149,102.323	0.000	149,102.323	133,220.335	15,881.988	63%	0.00%	0.00%	10.65%
2014	30.147	181,645.950	0.000	181,645.950	165,410.013	16,235.937	69%	0.00%	0.00%	8.94%
2015	33.014	198,279.627	0.000	198,279.627	180,739.283	17,540.344	69%	0.00%	0.00%	8.85%
2016	35.358	209,523.016	0.000	210,647.876	192,217.604	18,430.272	68%	0.00%	-0.54%	8.75%
2017	37.341	216,863.775	0.000	216,785.651	199,928.402	16,857.249	66%	0.00%	0.04%	7.78%
2018	39.492	233,760.699	0.000	228,420.545	210,131.508	18,289.037	66%	0.00%	2.28%	8.01%
2019	41.837	247,677.952	0.000	244,845.480	225,211.378	19,634.102	67%	0.00%	1.14%	8.02%
2020	42.997	252,078.559	0.000	246,786.744	225,354.087	21,432.657	66%	0.00%	2.10%	8.68%

Peak Demand increased from 41.837 MW in 2019 to 42.997 MW in 2020 at a rate of 2.77% due to the increased number of residential customers resulting to an increase in demand. For the year 2016, the cooperative's coincident peak demand reaches 35.358 MW which occurs in the month of August. For the year 2017, the cooperative's coincident peak demand reaches 37.341 MW which occurs in the month of October. For the year 2018, the cooperative's coincident peak demand reaches 39.492 MW which occurs in the month of November. For the year 2019, the cooperative's coincident peak demand reaches 39.492 MW which occurs in the month of November. For the year 2019, the cooperative's coincident peak demand reaches 41.837 MW which occurs in the month of May. MWh Offtake increased from 247,677.952 MWh in 2019 to 252,078.559 MWh in 2020 at a rate of 1.78% due to the increased consumption of residential customers. The increase in the MWh offtake is very small due to the effect of the COVID-19 pandemic which shutdowns some of the cooperatives' customers such as commercial, public building and industrial. Within the same period, Load Factor ranged from 66% to 67%. There was an increase in consumption on residential customers due to

the effect of COVID-19 pandemic. Most of residential customers are required to stay at their home to avoid being contracted by the said virus. Because of this, a lot of people are using their appliances and other gadgets in their home which causes the increase in consumption on the residential customers.

For the year 2020, ASELCO's kWh sales started to increase in the month of June due to the change in community quarantine classification in the whole province of Agusan del Sur. From June 1-15, 2020, the province of Agusan del Sur is placed under Modified Enhanced Community Quarantine (MECQ) thus limiting the movement of people and causing some commercial establishment to stop operation. However, starting June 16 to August 15, 2020, the province of Agusan del Sur is place under Modified General Community Quarantine (MGCQ) and on August 16, 2020, it was placed under General Community Quarantine (GCQ). With the change of community quarantine classification, the movement of people in the province of Agusan del Sur is now allowed. Some of the commercial establishments were also back to its operation. The peak demand was recorded in the month of September due to energization of some Public Buildings and High Voltage customers.



MWh Output increased from year 2000 to year 2020 at a rate of 9.62%, while System Loss decreased from 15.50% to 8.68% within the same period.



Historically, System Loss peaked at 17.80% on year 2002.



Industrial customers account for the bulk of energy sales at 50.45% despite of the low number of connections. In contrast, other customers composed of Public Buildings and Street Lights customers accounted for only 4.73% of energy sales due to the low number of connections.



The PSA with GN Power Kauswagan accounts for the bulk of MWh Offtake with a total energy delivered of 69,544.404 MWh.



WESM Offtake is Zero MWh from year 2000 to 2020 since the cooperative didn't purchased electricity in the market.

Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 3.244 MW, and the maximum load is 42.997 MW for the last historical year.



As shown in the Load Curves, the available supply is higher than the Peak Demand.



The Non-coincident Peak Demand is 47.20 MW, which is around 67.43% of the total substation capacity of 70 MVA at a power factor of 95.20%. The load factor or the ratio between the Average Load of 28.08 MW and the Non-coincident Peak Demand is 59.49%. A safe estimate of the true minimum load is the fifth percentile load of 19.43 MW which is 41.17% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
M2 (San Francisco)	10	8.617
M4 (Bayugan)	10	7.835
M7 (Trento)	10	6.770
M5 (Philsaga and Ocite)	25	14.345
M6 (Pisaan and Talacogon)	15	9.634

The substations loaded at above 70% are San Francisco Substation and Bayugan Substation. The loading problem in Bayugan Substation will be solved by uprating the Power Transformer from 10 MVA to 20 MVA. The loading problem in San Francisco Substation will be solved by the energization of the 5 MVA Ocite Substation. It is expected that the demand in San Francisco Substation will decrease due to the load transfer from San Francisco Substation to Ocite Substation.

Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2021	Jan	41.198	41.20	0.000	0.000		100%	100%	0.00
	Feb	41.736	41.74	0.000	0.000		100%	100%	0.00
	Mar	41.476	41.48	0.000	0.000		100%	100%	0.00
	Apr	38.508	38.51	0.000	0.000		100%	100%	0.00
	May	41.407	41.41	0.000	0.000		100%	100%	0.00
	Jun	41.487	41.49	0.000	0.000		100%	100%	0.00
	Jul	41.116	41.12	0.000	0.000		100%	100%	0.00
	Aug	42.165	42.17	0.000	0.000		100%	100%	0.00
	Sep	44.683	44.68	0.000	0.000		100%	100%	0.00
	Oct	41.940	41.94	0.000	0.000		100%	100%	0.00
	Nov	42.614	42.61	0.000	0.000		100%	100%	0.00
	Dec	43.137	43.14	0.000	0.000		100%	100%	0.00
2022	Jan	42.780	42.78	0.000	0.000		100%	100%	0.00
	Feb	43.339	43.34	0.000	0.000		100%	100%	0.00
	Mar	43.069	43.07	0.000	0.000		100%	100%	0.00
	Apr	39.987	39.99	0.000	0.000		100%	100%	0.00
	May	42.997	43.00	0.000	0.000		100%	100%	0.00
	Jun	43.080	43.08	0.000	0.000		100%	100%	0.00
	Jul	42.694	42.69	0.000	0.000		100%	100%	0.00
	Aug	43.784	43.78	0.000	0.000		100%	100%	0.00
	Sep	46.399	46.40	0.000	0.000		100%	100%	0.00
	Oct	43.551	43.55	0.000	0.000		100%	100%	0.00
	Nov	44.251	44.25	0.000	0.000		100%	100%	0.00
	Dec	44.794	44.79	0.000	0.000		100%	100%	0.00
2023	Jan	44.353	41.35	0.00	3.000		93%	100%	0.00
	Feb	44.932	41.93	0.00	3.000		93%	100%	0.00
	Mar	44.652	41.65	0.00	3.000		93%	100%	0.00
	Apr	41.457	38.46	0.00	3.000		93%	100%	0.00
	May	44.578	41.58	0.00	3.000		93%	100%	0.00

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Jun	44.664	41.66	0.00	3.000		93%	100%	0.00
	Jul	44.264	41.26	0.00	3.000		93%	100%	0.00
	Aug	45.394	42.39	0.00	3.000		93%	100%	0.00
	Sep	48.105	45.11	0.00	3.000		94%	100%	0.00
	Oct	45.152	42.15	0.00	3.000		93%	100%	0.00
	Nov	45.878	42.88	0.00	3.000		93%	100%	0.00
	Dec	46.441	43.44	0.00	3.000		94%	100%	0.00
2024	Jan	45.919	41.919	0.00	4.000		91%	100%	0.00
	Feb	46.519	42.519	0.00	4.000		91%	100%	0.00
	Mar	46.229	42.229	0.00	4.000		91%	100%	0.00
	Apr	42.921	38.921	0.00	4.000		91%	100%	0.00
	May	46.153	42.153	0.00	4.000		91%	100%	0.00
	Jun	46.242	42.242	0.00	4.000		91%	100%	0.00
	Jul	45.828	41.828	0.00	4.000		91%	100%	0.00
	Aug	46.997	42.997	0.00	4.000		91%	100%	0.00
	Sep	49.804	45.804	0.00	4.000		92%	100%	0.00
	Oct	46.747	42.747	0.00	4.000		91%	100%	0.00
	Nov	47.498	43.498	0.00	4.000		92%	100%	0.00
	Dec	48.081	44.081	0.00	4.000		92%	100%	0.00
2025	Jan	47.481	43.481	0.00	4.000		92%	100%	0.00
	Feb	48.101	44.101	0.00	4.000		92%	100%	0.00
	Mar	47.801	43.801	0.00	4.000		92%	100%	0.00
	Apr	44.381	40.381	0.00	4.000		91%	100%	0.00
	May	47.722	43.722	0.00	4.000		92%	100%	0.00
	Jun	47.814	43.814	0.00	4.000		92%	100%	0.00
	Jul	47.386	43.386	0.00	4.000		92%	100%	0.00
	Aug	48.595	44.595	0.00	4.000		92%	100%	0.00
	Sep	51.498	47.498	0.00	4.000		92%	100%	0.00
	Oct	48.336	44.336	0.00	4.000		92%	100%	0.00
	Nov	49.113	45.113	0.00	4.000		92%	100%	0.00
	Dec	49.716	45.716	0.00	4.000		92%	100%	0.00

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2026	Jan	49.039	45.039	0.00	4.000		92%	100%	0.00
	Feb	49.679	45.679	0.00	4.000		92%	100%	0.00
	Mar	49.370	45.370	0.00	4.000		92%	100%	0.00
	Apr	45.837	41.837	0.00	4.000		91%	100%	0.00
	May	49.288	45.288	0.00	4.000		92%	100%	0.00
	Jun	49.383	45.383	0.00	4.000		92%	100%	0.00
	Jul	48.941	44.941	0.00	4.000		92%	100%	0.00
	Aug	50.190	46.190	0.00	4.000		92%	100%	0.00
	Sep	53.188	49.188	0.00	4.000		92%	100%	0.00
	Oct	49.922	45.922	0.00	4.000		92%	100%	0.00
	Nov	50.725	46.725	0.00	4.000		92%	100%	0.00
	Dec	51.347	47.347	0.00	4.000		92%	100%	0.00
2027	Jan	50.593	46.593	0.00	4.000		92%	100%	0.00
	Feb	51.254	47.254	0.00	4.000		92%	100%	0.00
	Mar	50.935	46.935	0.00	4.000		92%	100%	0.00
	Apr	47.290	43.290	0.00	4.000		92%	100%	0.00
	May	50.851	46.851	0.00	4.000		92%	100%	0.00
	Jun	50.949	46.949	0.00	4.000		92%	100%	0.00
	Jul	50.492	46.492	0.00	4.000		92%	100%	0.00
	Aug	51.781	46.781	0.00	5.000		90%	100%	0.00
	Sep	54.874	42.874	0.00	12.000		78%	100%	0.00
	Oct	51.505	39.505	0.00	12.000		77%	100%	0.00
	Nov	52.333	40.333	0.00	12.000		77%	100%	0.00
	Dec	52.975	40.975	0.00	12.000		77%	100%	0.00
2028	Jan	52.146	40.146	0.00	12.000		77%	100%	0.00
	Feb	52.827	40.827	0.00	12.000		77%	100%	0.00
	Mar	52.498	40.498	0.00	12.000		77%	100%	0.00
	Apr	48.741	36.741	0.00	12.000		75%	100%	0.00
	May	52.411	40.411	0.00	12.000		77%	100%	0.00
	Jun	52.512	40.512	0.00	12.000		77%	100%	0.00
	Jul	52.042	40.042	0.00	12.000		77%	100%	0.00

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Aug	53.370	41.370	0.00	12.000		78%	100%	0.00
	Sep	56.558	44.558	0.00	12.000		79%	100%	0.00
	Oct	53.085	41.085	0.00	12.000		77%	100%	0.00
	Nov	53.939	41.939	0.00	12.000		78%	100%	0.00
	Dec	54.601	42.601	0.00	12.000		78%	100%	0.00
2029	Jan	53.696	41.696	0.00	12.000		78%	100%	0.00
	Feb	54.398	42.398	0.00	12.000		78%	100%	0.00
	Mar	54.059	42.059	0.00	12.000		78%	100%	0.00
	Apr	50.190	38.190	0.00	12.000		76%	100%	0.00
	May	53.969	41.969	0.00	12.000		78%	100%	0.00
	Jun	54.073	42.073	0.00	12.000		78%	100%	0.00
	Jul	53.589	41.589	0.00	12.000		78%	100%	0.00
	Aug	54.957	42.957	0.00	12.000		78%	100%	0.00
	Sep	58.239	46.239	0.00	12.000		79%	100%	0.00
	Oct	54.664	42.664	0.00	12.000		78%	100%	0.00
	Nov	55.543	43.543	0.00	12.000		78%	100%	0.00
	Dec	56.224	44.224	0.00	12.000		79%	100%	0.00
2030	Jan	55.245	43.245	0.00	12.000		78%	100%	0.00
	Feb	55.967	43.967	0.00	12.000		79%	100%	0.00
	Mar	55.618	43.618	0.00	12.000		78%	100%	0.00
	Apr	51.638	39.638	0.00	12.000		77%	100%	0.00
	May	55.526	43.526	0.00	12.000		78%	100%	0.00
	Jun	55.633	43.633	0.00	12.000		78%	100%	0.00
	Jul	55.135	43.135	0.00	12.000		78%	100%	0.00
	Aug	56.542	44.542	0.00	12.000		79%	100%	0.00
	Sep	59.919	47.720	0.00	12.199		80%	100%	0.00
	Oct	56.241	44.241	0.00	12.000		79%	100%	0.00
	Nov	57.145	45.145	0.00	12.000		79%	100%	0.00
	Dec	57.846	45.846	0.00	12.000		79%	100%	0.00

The Peak Demand was forecasted using the 56 Forecasting Models based on the 7-year historical data and was assumed to occur on the month of May due to summer season and harvest time of rice fields. Monthly Peak Demand is at its lowest on the month of April due to the strict implementation of COVID-19 safety protocol. A lot of commercial, public building, and industrial customers are limited in their operation. In general, Peak Demand is expected to grow at a rate of 3.38% annually.



The available supply is generally above the Peak Demand. This is because the cooperative had contracted enough power supply to accommodate increasing demand of the franchise area.



Of the available supply, the largest is 17.72 MW from GN Power Kauswagan Ltd. This is followed by 10 MW from Therma South Incorporated (TSI), 10 MW from San Miguel Consolidated Power Corporation (SMCPC) and 10 MW from Sarangani Energy Corporation (SEC). The cooperative also has a contract with Power Sector Assets and Liabilities Management Corporation (PSALM) with an average contracted demand of 1 MW. The cooperative also has an embedded generator from Peakpower San Francisco Inc. (PSFI) for two units of 5 MW Diesel Generator. The data in the forecasted sheet in the PSPP is the identified nominations of ASELCO to the above Power Supply Agreements.

For the supply for CSP 1, ASELCO planned to have a supply from Renewable Energy Supply. This supply will address ASELCO's compliance to the required percentage for the Renewable Portfolio

Standard. Every time that this renewable energy will supply to ASELCO grid, one of the other suppliers of ASELCO will have to reduce its supply equivalent to the demand supplied by the renewable energy.



The first wave of supply procurement will be for 10 MW planned to be available by the year 2023. This will be followed by 8 MW which will be available in September 2027.



Currently, there is over-contracting by 152%. The highest target contracting level is 166% which is expected to occur on April 2023. The lowest target contracting level is 101% which is expected to occur on September 2030.



Currently, there is over-contracting by 20.212 MW. The highest surplus is 20.212 MW which is expected to occur on the month of April 2021. The lowest surplus is 0.80 MW which is expected to occur on the month of September 2030.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	20,940	19,142	1,779.676	0.09%	8.51%
	Feb	21,219	18,754	2,046.795	1.97%	9.84%
	Mar	21,004	19,053	1,616.580	1.59%	7.82%
	Apr	19,824	17,709	1,781.483	1.68%	9.14%
	May	21,613	19,490	1,636.800	2.25%	7.75%
	Jun	22,934	20,442	2,056.795	1.90%	9.14%
	Jul	22,595	20,317	1,645.940	2.80%	7.49%
	Aug	22,962	20,747	1,674.307	2.35%	7.47%
	Sep	24,077	21,534	1,952.227	2.45%	8.31%
	Oct	22,220	19,577	2,116.914	2.37%	9.76%
	Nov	22,429	20,079	1,874.869	2.12%	8.54%
	Dec	22,012	19,893	1,615.282	2.29%	7.51%
2022	Jan	21,737	19,844	1,863.844	0.13%	8.59%
	Feb	22,012	19,436	2,140.830	1.98%	9.92%
	Mar	21,793	19,743	1,694.470	1.63%	7.90%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Apr	20,568	18,395	1,864.537	1.50%	9.20%
	May	22,419	20,238	1,715.840	2.07%	7.82%
	Jun	23,792	21,209	2,152.668	1.81%	9.21%
	Jul	23,433	21,063	1,726.025	2.75%	7.57%
	Aug	23,817	21,515	1,755.843	2.29%	7.55%
	Sep	24,973	22,337	2,045.028	2.36%	8.39%
	Oct	23,048	20,296	2,214.345	2.33%	9.84%
	Nov	23,266	20,838	1,963.481	1.99%	8.61%
	Dec	22,833	20,654	1,693.842	2.13%	7.58%
2023	Jan	22,515	20,529	1,946.157	0.18%	8.66%
	Feb	22,785	20,101	2,232.765	1.98%	10.00%
	Mar	22,562	20,415	1,770.657	1.67%	7.98%
	Apr	21,294	19,064	1,945.748	1.34%	9.26%
	May	23,205	20,967	1,793.154	1.92%	7.88%
	Jun	24,630	21,957	2,246.413	1.73%	9.28%
	Jul	24,250	21,790	1,804.368	2.70%	7.65%
	Aug	24,652	22,264	1,835.607	2.24%	7.62%
	Sep	25,846	23,120	2,135.789	2.28%	8.46%
	Oct	23,855	20,996	2,309.602	2.30%	9.91%
	Nov	24,083	21,579	2,050.140	1.88%	8.68%
	Dec	23,633	21,396	1,770.692	1.98%	7.64%
2024	Jan	23,274	21,197	2,026.731	0.22%	8.73%
	Feb	23,541	20,749	2,322.733	1.99%	10.07%
	Mar	23,313	21,071	1,845.249	1.70%	8.05%
	Apr	22,004	19,718	2,025.233	1.18%	9.31%
	May	23,973	21,680	1,868.851	1.77%	7.94%
	Jun	25,448	22,687	2,338.166	1.66%	9.34%
	Jul	25,048	22,500	1,881.077	2.66%	7.72%
	Aug	25,467	22,995	1,913.707	2.19%	7.68%
	Sep	26,700	23,885	2,224.637	2.21%	8.52%
	Oct	24,644	21,680	2,402.823	2.28%	9.98%
	Nov	24,880	22,303	2,134.968	1.78%	8.74%
	Dec	24,415	22,120	1,845.940	1.84%	7.70%
2025	Jan	24,017	21,849	2,105.662	0.26%	8.79%
	Feb	24,279	21,383	2,410.844	2.00%	10.13%
	Mar	24,047	21,711	1,918.331	1.74%	8.12%
	Apr	22,697	20,358	2,103.088	1.04%	9.36%
	May	24,724	22,377	1,943.016	1.63%	7.99%
	Jun	26,248	23,400	2,428.037	1.60%	9.40%
	Jul	25,829	23,194	1,956.240	2.63%	7.78%
	Aug	26,263	23,709	1,990.233	2.15%	(./4%
	Sep	27,534	24,632	2,311.677	2.14%	8.58%
	Oct	25,415	22,348	2,494.121	2.25%	10.04%
	NOV	25,660	23,011	2,218.065	1.68%	8.79%
2020	Dec	25,180	22,829	1,919.670	1.71%	1.16%
2026	Jan	24,743	22,487	2,183.030	0.30%	<u>کی ۵.85%</u>
	Feb	25,002	22,003	2,497.190	2.01%	10.19%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Mar	24,766	22,337	1,989.975	1.77%	8.18%
	Apr	23,375	20,984	2,179.392	0.91%	9.41%
	May	25,459	23,060	2,015.724	1.51%	8.04%
	Jun	27,030	24,098	2,516.117	1.54%	9.45%
	Jul	26,592	23,872	2,029.928	2.59%	7.84%
	Aug	27,043	24,407	2,065.259	2.11%	7.80%
	Sep	28,350	25,363	2,396.996	2.08%	8.63%
	Oct	26,170	23,002	2,583.592	2.23%	10.10%
	Nov	26,423	23,703	2,299.516	1.59%	8.84%
	Dec	25,927	23,523	1,991.954	1.59%	7.81%
2027	Jan	25,455	23,112	2,258.899	0.33%	8.90%
	Feb	25,709	22,609	2,581.848	2.02%	10.25%
	Mar	25,469	22,950	2,060.240	1.80%	8.24%
	Apr	24,039	21,597	2,254.211	0.78%	9.45%
	May	26,178	23,728	2,087.034	1.39%	8.08%
	Jun	27,796	24,781	2,602.484	1.48%	9.50%
	Jul	27,339	24,536	2,102.204	2.56%	7.89%
	Aug	27,806	25,091	2,138.847	2.07%	7.85%
	Sep	29,149	26,079	2,480.666	2.02%	8.69%
	Oct	26,908	23,641	2,671.314	2.21%	10.15%
	Nov	27,170	24,381	2,379.390	1.51%	8.89%
	Dec	26,660	24,201	2,062.852	1.48%	7.85%
2028	Jan	26,151	23,723	2,333.328	0.36%	8.95%
	Feb	26,402	23,202	2,664.882	2.03%	10.30%
	Mar	26,158	23,549	2,129.180	1.83%	8.29%
	Apr	24,689	22,198	2,327.603	0.66%	9.49%
	May	26,883	24,383	2,156.998	1.28%	8.13%
	Jun	28,546	25,450	2,687.202	1.43%	9.55%
	Jul	28,072	25,186	2,173.120	2.54%	7.94%
	Aug	28,553	25,761	2,211.050	2.04%	7.90%
	Sep	29,932	26,780	2,562.749	1.97%	8.73%
	Oct	27,632	24,268	2,757.355	2.20%	10.20%
	Nov	27,902	25,044	2,457.746	1.43%	8.94%
	Dec	27,377	24,867	2,132.415	1.38%	7.90%
2029	Jan	26,834	24,322	2,406.364	0.39%	9.00%
	Feb	27,081	23,784	2,746.351	2.03%	10.35%
	Mar	26,833	24,137	2,196.836	1.86%	8.34%
	Apr	25,327	22,786	2,399.616	0.56%	9.53%
	May	27,573	25,024	2,225.662	1.17%	8.17%
	Jun	29,282	26,106	2,770.329	1.38%	9.59%
	Jul	28,789	25,823	2,242.720	2.51%	7.99%
	Aug	29,286	26,417	2,281.915	2.00%	7.95%
	Sep	30,699	27,466	2,643.300	1.92%	8.78%
	Oct	28,341	24,881	2,841.774	2.18%	10.25%
	Nov	28,619	25,695	2,534.637	1.36%	8.98%
0000	Dec	28,079	25,518	2,200.688	1.28%	7.94%
2030	Jan	27,503	24,909	2,478.051	0.42%	9.05%

	MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
Feb	27,747	24,354	2,826.302	2.04%	10.40%
Mar	27,495	24,712	2,263.249	1.89%	8.39%
Apr	25,952	23,364	2,470.293	0.45%	9.56%
May	28,250	25,654	2,293.064	1.07%	8.21%
Jun	30,002	26,749	2,851.914	1.34%	9.63%
Jul	29,492	26,448	2,311.044	2.49%	8.04%
Aug	30,004	27,060	2,351.479	1.98%	8.00%
Sep	31,451	28,139	2,722.364	1.87%	8.82%
Oct	29,036	25,483	2,924.622	2.17%	10.30%
Nov	29,322	26,333	2,610.106	1.29%	9.02%
Dec	28,768	26,157	2,267.708	1.19%	7.98%

System Loss was calculated through a Load Flow Study conducted by the cooperative's System Engineer using DSAS software. Based on the same study, the Distribution System can adequately convey electricity to customers.



MWh Output was expected to grow at a rate of 3.22% annually.



System Loss is expected to range from 7.47% to 10.40%.

Case No.	Туре	Type GenCo		Minimum MWh/yr	PSA Start	PSA End
2013-055RC	Base	Power Sector Assets and Liabilities Management Corporation	1.000	8,760.000	12/26/2020	12/25/2023
2014-032RC	Peaking	Peakpower San Francisco, Inc.	3.000	72.000	3/26/2015	3/25/2030
2013-112RC	Base	Therma South, Inc.	4.000	35,040	9/26/2015	9/25/2040
2013-012RC	Intermediate	Sarangani Energy Corporation	4.000	35,040	4/29/2016	4/28/2041
2016-119RC	Base	San Miguel Consolidated Power Corporation	4.000	35,040	7/26/2017	7/25/2027
2016-064RC	Peaking	Peakpower San Francisco, Inc.	3.000	72.000	1/26/2018	1/25/2033
2014-011RC	Base	GN Power Kauswagan Ltd.	7.088	62,090.880	8/8/2019	8/7/2039

Power Supply

The **PSA with Power Sector Assets and Liabilities Management Corporation filed with ERC under Case No. 2013-055RC** was procured through Contract for the Supply of Electric Energy (CSEE). It was selected to provide for base due to its lower rate. Historically, the utilization of the PSA is 11.82%. The actual billed overall monthly charge under the PSA ranged from 1.6887 P/kWh to 2.2754 P/KWh in the same period.

The **PSA with Peakpower San Francisco Inc. filed with ERC under Case No. 2014-032RC** was procured through Power Purchase and Transfer Agreement. It was selected to provide for peaking requirements due to its lower number of hours needed. Historically, the utilization of the PSA is 0.06%. The actual billed overall monthly charge under the PSA ranged from 167.2622 P/kWh to 773.1646 P/KWh in the same period.

The **PSA with Therma South Inc. filed with ERC under Case No. 2013-112RC** was procured through Energy Sales Agreement. It was selected to provide for base requirements due to its plant type which is coal. Historically, the utilization of the PSA is 17.38%. The actual billed overall monthly charge under the PSA ranged from 6.5670 P/kWh to 8.9879 P/KWh in the same period.

The **PSA with Sarangani Energy Corporation filed with ERC under Case No. 2013-012RC** was procured through Power Sales Agreement. It was selected to provide for intermediate requirements due to its plant type which is coal. Historically, the utilization of the PSA is 19.87%. The actual billed overall monthly charge under the PSA ranged from 7.2762 P/kWh to 14.4639 P/KWh in the same period.

The **PSA with San Miguel Consolidated Power Corporation filed with ERC under Case No. 2016-119RC** was procured through Power Supply Contract. It was selected to provide for base requirements due to its plant type which is coal. Historically, the utilization of the PSA is 23.25%. The actual billed overall monthly charge under the PSA ranged from 6.1223 P/kWh to 7.7469 P/KWh in the same period.

The **PSA with Peakpower San Francisco Inc. filed with ERC under Case No. 2016-064RC** was procured through Power Purchase and Transfer Agreement. It was selected to provide for peaking requirements due to its lower number of hours needed. Historically, the utilization of the PSA is 0.02%. The actual billed overall monthly charge under the PSA is 182.6431 P/kWh in the same period.

The minimum MW purchased for each unit of Peakpower San Francisco Inc. is 3 MW while the minimum annual MWh purchased is 72 MWh. PSFI will only be utilized during peak hours in case there is a supply deficiency in the grid as a back-up power. PSFI can also operate as replacement power through Island Mode in case there is an outage in NGCP's 69 kV sub-transmission line. In this situation, PSFI power plants can still supply ASELCO's loads of San Francisco, Pisaan, Talacogon and even Ocite Substations depending on the total demand of these substations. For the monthly forecasted consumption sheet, the monthly MW entry is 5 MW since ASELCO doesn't know when will be the time that these plants will be utilized at its full capacity when such situations occur.

The **PSA with GN Power Kauswagan Ltd filed with ERC under Case No. 2014-011RC** was procured through Power Purchase and Sales Agreement. It was selected to provide for base requirements due to its plant type which is coal to. Historically, the utilization of the PSA is 27.59%. The actual billed overall monthly charge under the PSA ranged from 5.1120 P/kWh to 6.2876 P/KWh in the same period.

	CSP 1	CSP 2
Туре	Intermediate	Base
Minimum MW	10.00	8.00
Minimum MWh/yr	17,987	28,032
PSA Start	1/2023	9/2027
PSA End	1/2038	9/2037
Publication	1/2022	1/2026
Pre-bid	1/22/2022	1/22/2026
Opening	3/23/2022	3/23/2026
Awarding	4/22/2022	4/22/2026
PSA Signing	5/22/2022	5/22/2026
Joint Filing	5/31/2022	5/31/2026



For the procurement of 10 MW of supply which is planned to be available on the year 2023, the cooperative is looking for a renewable energy supply that will be purchased in order to comply the required percentage for the Renewable Portfolio Standard.

For the procurement of 8 MW of supply which is planned to be available on September 2027, the first publication or launch of CSP will be in January 2026. Joint filing is planned on May 31, 2026, or 150 days later, in accordance with DOE's 2018 CSP Policy.



Captive Customer Connections

The number of Residential connections is expected to grow at a rate of 2.99% annually. Said customer class is expected to account for 38.60% of the total consumption in the year 2021.