

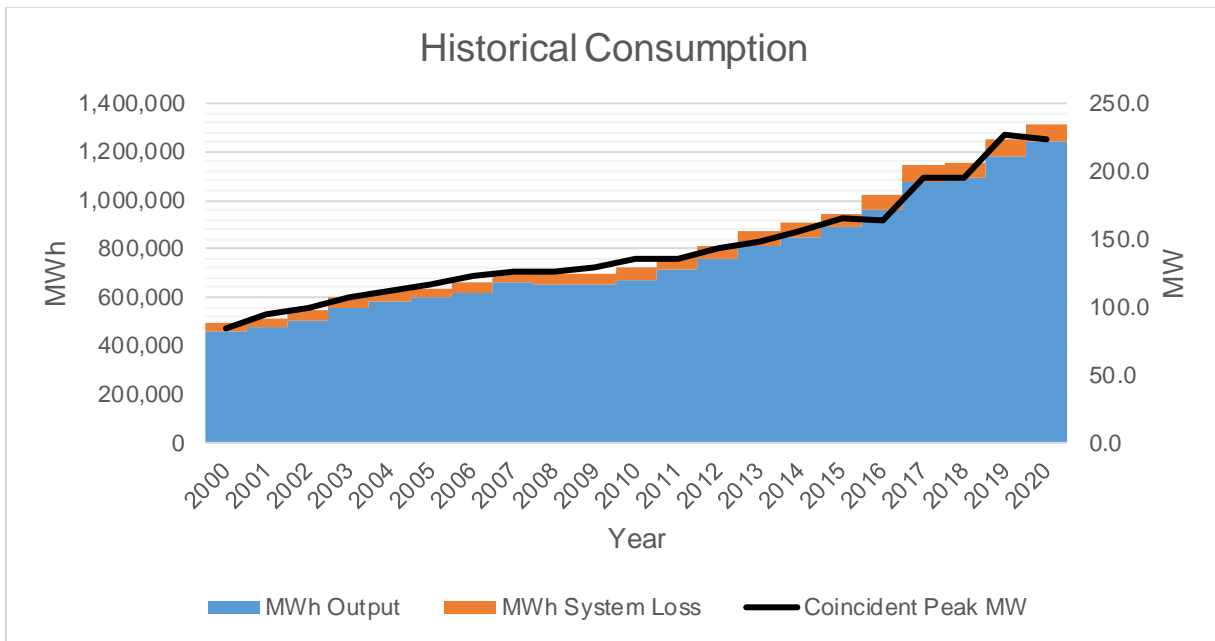
Power Supply Procurement Plan 2021

**Cagayan Electric Power and Light Company, Inc.
(CEPALCO)
Grid**

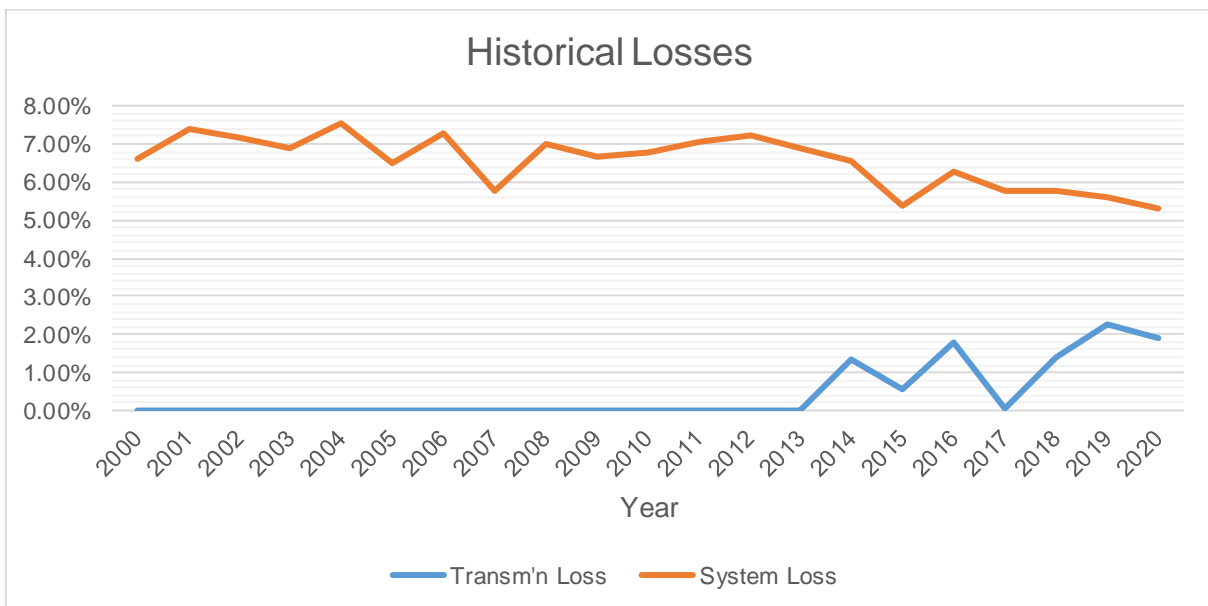
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	84.22	493,516	0	493,516	460,840	32,676	67%	0.00%	0.00%	6.62%
2001	95.26	516,370	0	516,370	478,292	38,079	62%	0.00%	0.00%	7.37%
2002	99.42	546,619	0	546,619	507,405	39,214	63%	0.00%	0.00%	7.17%
2003	106.90	598,896	0	598,896	557,782	41,114	64%	0.00%	0.00%	6.86%
2004	112.68	630,386	0	630,386	582,859	47,527	64%	0.00%	0.00%	7.54%
2005	115.90	639,467	0	639,467	598,110	41,356	63%	0.00%	0.00%	6.47%
2006	122.46	662,668	0	662,668	614,588	48,080	62%	0.00%	0.00%	7.26%
2007	126.16	701,190	0	701,190	660,664	40,526	63%	0.00%	0.00%	5.78%
2008	125.73	700,459	0	700,459	651,542	48,917	64%	0.00%	0.00%	6.98%
2009	129.78	700,227	0	700,227	653,727	46,500	62%	0.00%	0.00%	6.64%
2010	135.26	722,127	0	722,127	673,062	49,065	61%	0.00%	0.00%	6.79%
2011	135.85	768,747	0	768,747	714,615	54,131	65%	0.00%	0.00%	7.04%
2012	143.10	814,576	0	814,576	755,610	58,965	65%	0.00%	0.00%	7.24%
2013	148.82	870,255	0	870,255	810,505	59,750	67%	0.00%	0.00%	6.87%
2014	155.55	920,590	0	908,114	848,794	59,320	67%	0.00%	1.36%	6.53%
2015	165.39	951,503	0	946,045	895,015	51,030	65%	0.00%	0.57%	5.39%
2016	164.24	1,041,043	0	1,022,415	958,518	63,897	71%	0.00%	1.79%	6.25%
2017	195.38	1,144,263	0	1,143,583	1,077,693	65,889	67%	0.00%	0.06%	5.76%
2018	195.63	1,174,299	0	1,157,738	1,091,082	66,656	68%	0.00%	1.41%	5.76%
2019	226.83	1,280,249	0	1,251,282	1,181,227	70,055	63%	0.00%	2.26%	5.60%
2020	223.21	1,335,901	0	1,310,187	1,240,707	69,479	67%	0.00%	1.92%	5.30%

Peak Demand decreased from 226.83 MW in 2019 to 223.21 MW in 2020 at a rate of 1.60% due to the effects of quarantine brought by COVID-19 pandemic on the coincidence demand of CEPALCO. MWh Offtake increased from 1,280,249 MWh in 2019 to 1,335,901 MWh in 2020 at a rate of 4.35% (lower than the 9.02% rate of 2019) due to the growing energy requirement and the increased energy consumption of a Steel Plant in the 4th quarter of 2020. Within the same period, Load Factor ranged from 61% to 71%. There was an abrupt change in consumption on 2019 due to the specified 138kV Steel Plant.



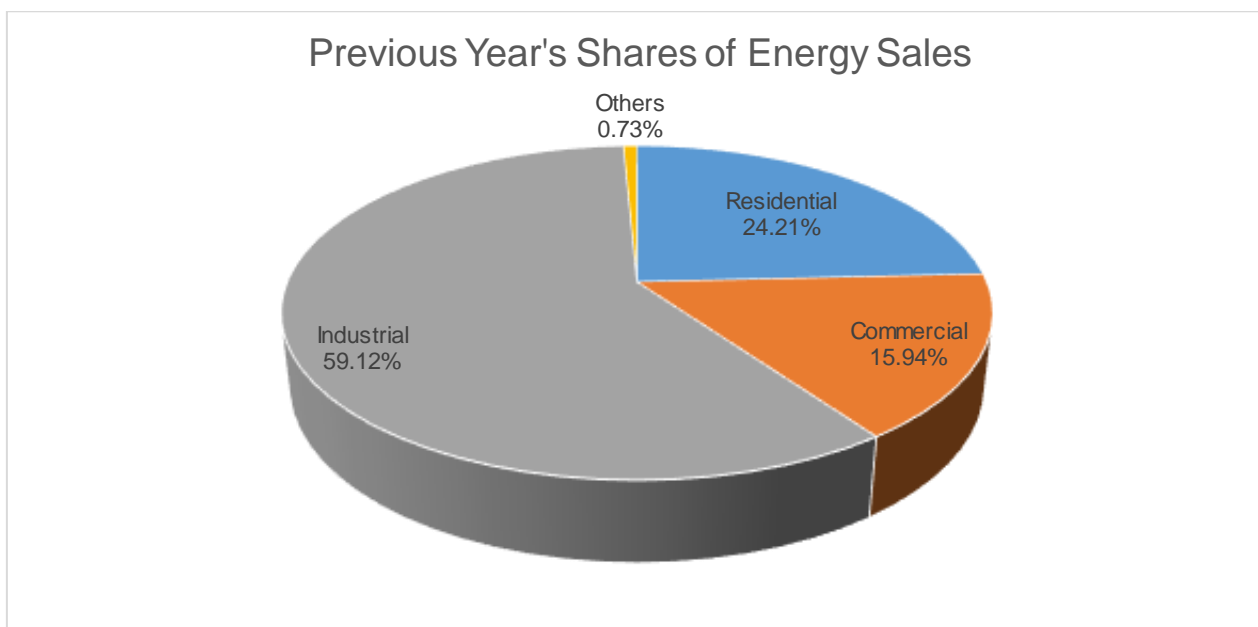
MWh Output increased from year 2019 to year 2020 at a rate of 5.04%, while MWh System Loss decreased at a rate of 0.82% within the same period.



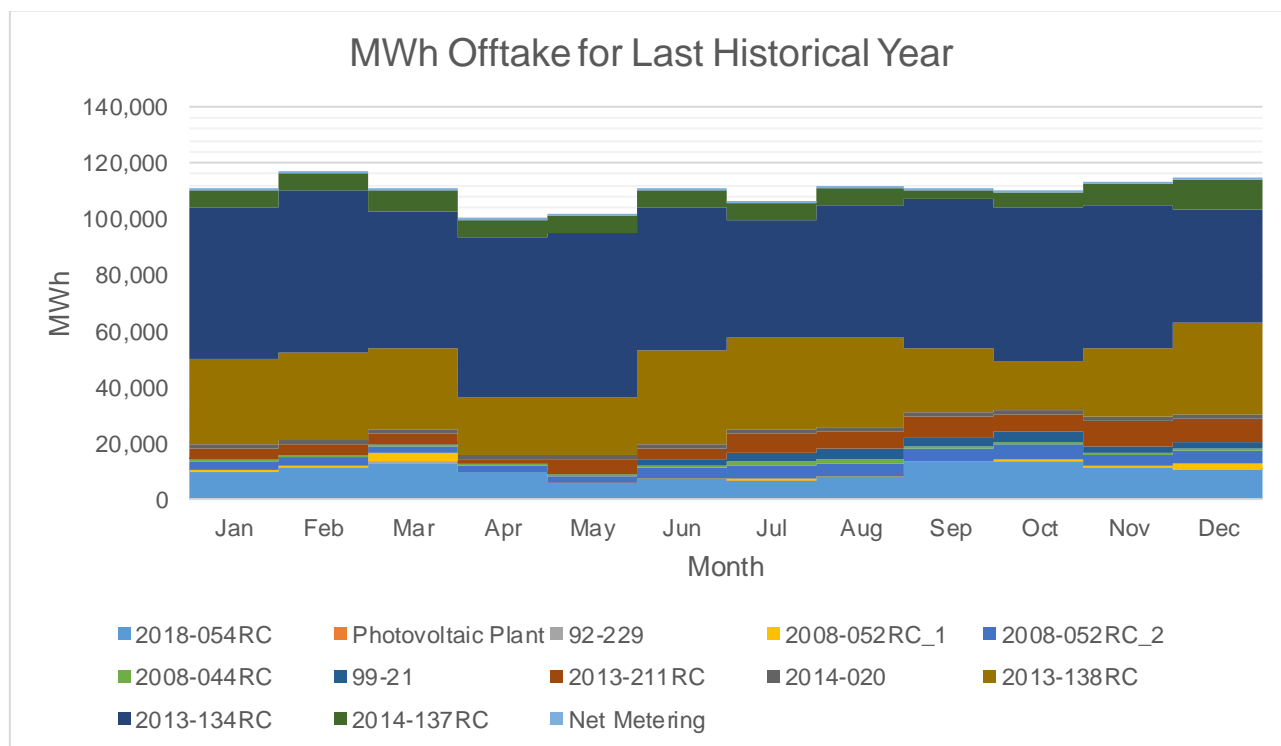
Historically, the true Transmission Loss cannot be determined while System Loss ranged from 5.30% to 7.54%. CEPALCO cannot calculate its true contribution to Transmission Loss with the available data. Transmission Loss is calculated by subtracting the Total kWh at the NGCP Metering Points to the Total kWh measured at Plant Gate of Grid connected generators. Since CSEE-PSALM, one of CEPALCO's Grid suppliers, provides kWh measured at the metering point instead of their Plant Gate, CEPALCO is constrained to determine the true Transmission Loss using the above formula. CSEE-PSALM is the lone Grid connected generator of CEPALCO on years 2000 to 2013. CEPALCO started receiving supply from other Grid connected generators starting year 2014. System Loss peaked at 7.54% on year 2004 because of increasing demand and the radial configuration of CEPALCO's distribution system. The few substations and long feeder reach also contributed to this high system loss.

The Transmission Losses computed for years 2014 to 2020 are the loss contribution of other Grid generators (i.e. 2013-211RC, 2014-137RC, 2015-188RC and 2015-189RC) to the Transmission System.

Upon renewal of its existing CSEE with PSALM which will end on year 2025, CEPALCO will amend the CSEE to resolve the problem on determining CEPALCO's true contribution to Transmission Loss.

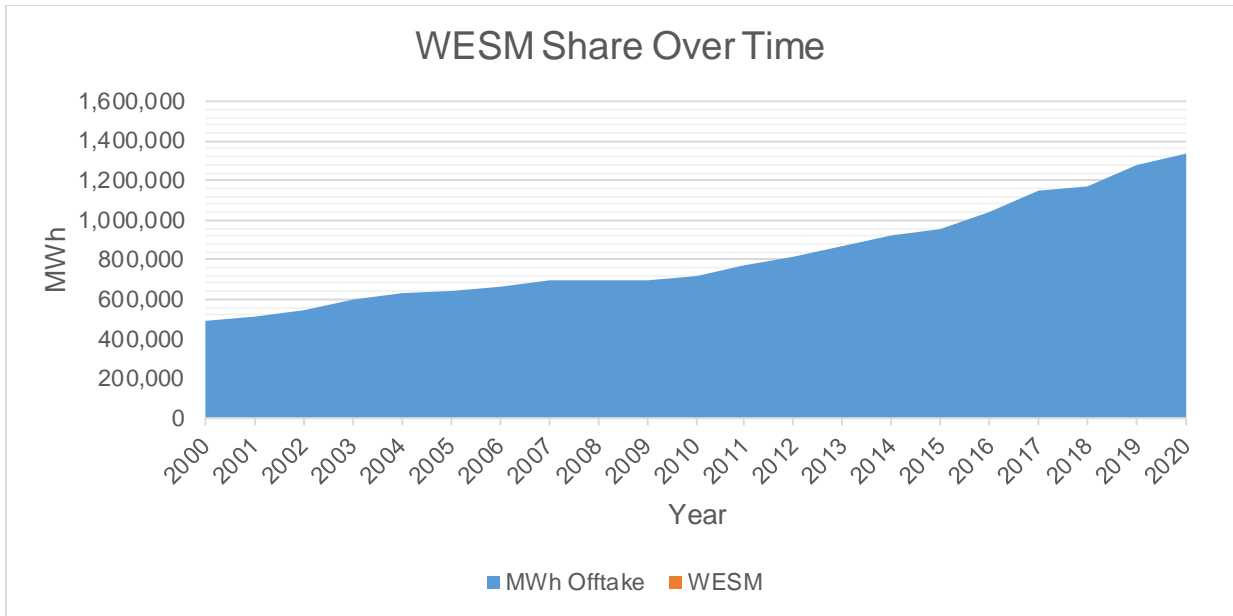


Industrial customers account for the bulk of energy sales at 59.12%. In contrast, other customers, specifically street lights, accounted for only 0.73% of energy sales due to the low number of connections.



The total Offtake for the last historical year is lower than the quantity stipulated in the PSA. The PSA with case no. 2013-134RC and 2013-138RC accounts for the majority of MWh Offtake.

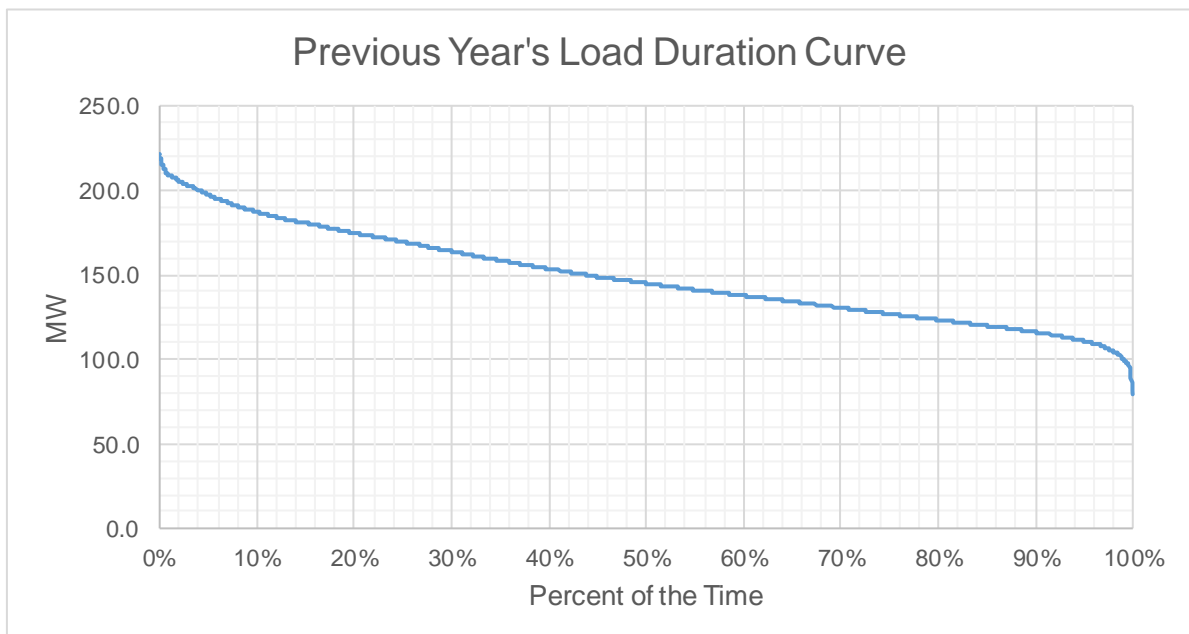
The supplier indicated as "Photovoltaic Plant in the graph above has no ERC case number since it is DU owned. CEPALCO did not apply for PSA Approval since there is no counter party. Hence, there is no corresponding ERC case number.



MWh Offtake increased from 1,280,249 MWh in 2019 to 1,335,901 MWh in 2020 at a rate of 4.35% (lower than the 9.02% rate of 2019) due to the growing energy requirement and the increased energy consumption of a Steel Plant in the 4th quarter of 2020. The share of WESM in the total Offtake is maintained at 0% since there is still no WESM in Mindanao. The energy requirement of CEPALCO can still be supplied by bilateral contracts through PSA.

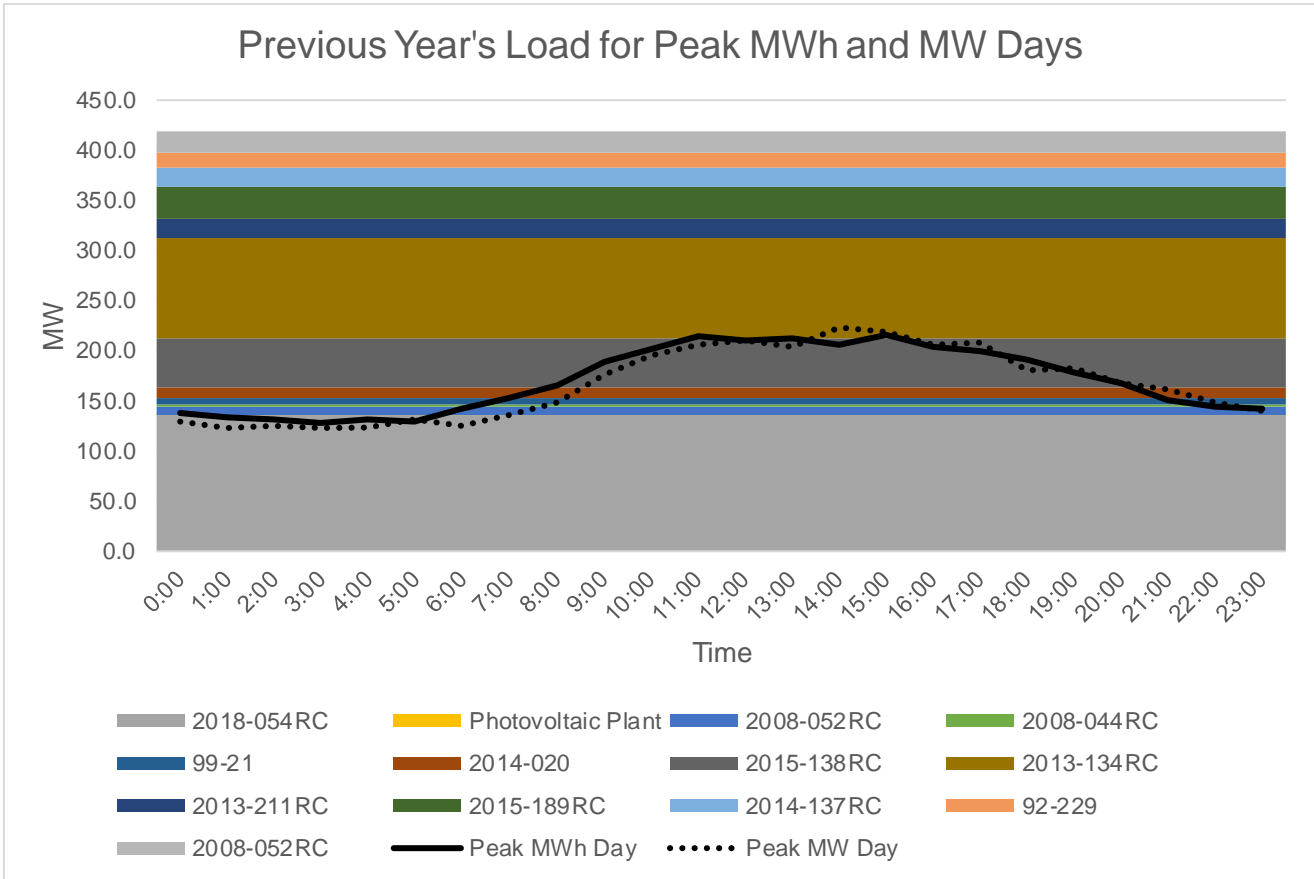
CEPALCO has processed its requirements prior to the commencement of WESM in Mindanao.

Previous Year's Load Profile

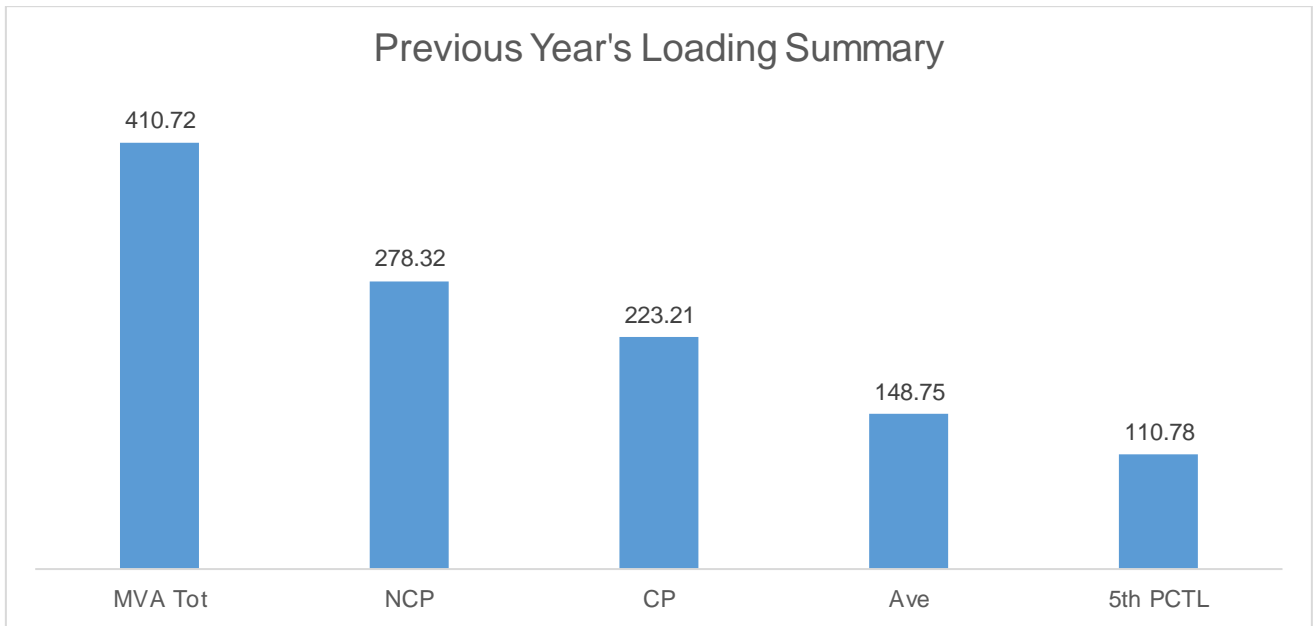


Based on the Load Duration Curve, the minimum load is 79.29 MW, and the maximum load is 223.21 MW for the last historical year.

The above load data is the sum of the coincident MW supplied from the metering points of CEPALCO from NGCP and the embedded generators of CEPALCO. There are times when portion or all loads from one metering point are transferred to another metering point due to various operational constraints as determined by CEPALCO system operators. This explains why there are 0 MW readings in the year 2020 for Metering Points 1, 4 and 5.



Peak MW occurred on 14:00 due to the increased demand from medium voltage customers. Peak daily MWh occurred on 15:00 due to the increased demand from medium voltage customers. As shown in the Load Curves, the available supply is higher than the Peak Demand.



The Non-coincident Peak Demand is 278.32 MW, which is around 67.76% of the total substation capacity of 410.72 MVA at a power factor of 0.68. The load factor or the ratio between the Average Load of 148.75 MW and the Non-coincident Peak Demand is 53.34%. A safe estimate of the true minimum load is the fifth percentile load of 110.78 MW which is 39.80% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
M1	20	16.266
M2 + Cabulig	78.4	46.319
M3 + BPC + KSEC + Minergy Diesel + Minergy Coal	272.5	210.361
M4	10.45	0.000
M5	24	0.000
M6	5.37	5.373

The metering points loaded at above 70% are “M3 + BPC + KSEC + Minergy Diesel + Minergy Coal” and “M1” based on the metering capacity allocations provided by NGCP. The loading problem for “M3 + BPC + KSEC + Minergy Diesel + Minergy Coal” and “M1” will be solved by the proposed increase of capacity from the Grid. The Substation MVA capacities indicated in table above are the metering capacity allocations provided by NGCP.

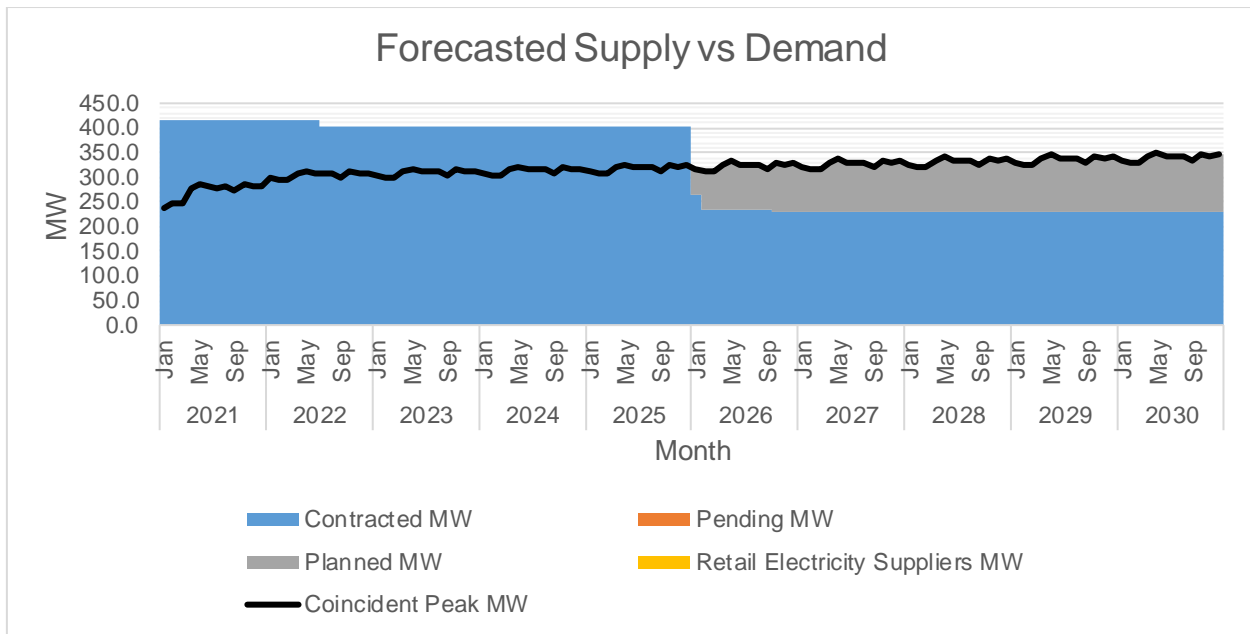
Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2021	Jan	237.41	417.86	0.00	0.000	176%	176%	180.45
	Feb	246.38	417.86	0.00	0.000	170%	170%	171.48
	Mar	247.25	417.86	0.00	0.000	169%	169%	170.61
	Apr	275.73	417.86	0.00	0.000	152%	152%	142.13
	May	286.08	417.86	0.00	0.000	146%	146%	131.78
	Jun	280.78	417.86	0.00	0.000	149%	149%	137.08
	Jul	279.41	417.86	0.00	0.000	150%	150%	138.45
	Aug	281.12	417.86	0.00	0.000	149%	149%	136.74
	Sep	273.01	417.86	0.00	0.000	153%	153%	144.85
	Oct	285.16	417.86	0.00	0.000	147%	147%	132.70
	Nov	281.50	417.86	0.00	0.000	148%	148%	136.36
	Dec	282.54	417.86	0.00	0.000	148%	148%	135.32
2022	Jan	298.87	417.86	0.00	0.000	140%	140%	118.99
	Feb	295.45	417.86	0.00	0.000	141%	141%	122.41
	Mar	294.78	417.86	0.00	0.000	142%	142%	123.08
	Apr	307.37	417.86	0.00	0.000	136%	136%	110.49
	May	313.33	417.86	0.00	0.000	133%	133%	104.53
	Jun	307.52	417.86	0.00	0.000	136%	136%	110.34
	Jul	306.02	402.55	0.00	0.000	132%	132%	96.53
	Aug	307.89	402.55	0.00	0.000	131%	131%	94.66
	Sep	299.01	402.55	0.00	0.000	135%	135%	103.54
	Oct	312.32	402.55	0.00	0.000	129%	129%	90.23
	Nov	308.31	402.55	0.00	0.000	131%	131%	94.24
	Dec	309.45	402.55	0.00	0.000	130%	130%	93.10
2023	Jan	302.85	402.55	0.00	0.000	133%	133%	99.70
	Feb	299.39	402.55	0.00	0.000	134%	134%	103.16
	Mar	298.71	402.55	0.00	0.000	135%	135%	103.84
	Apr	311.47	402.55	0.00	0.000	129%	129%	91.08
	May	317.50	402.55	0.00	0.000	127%	127%	85.05
	Jun	311.63	402.55	0.00	0.000	129%	129%	90.92
	Jul	310.10	402.55	0.00	0.000	130%	130%	92.45
	Aug	312.00	402.55	0.00	0.000	129%	129%	90.55
	Sep	303.00	402.55	0.00	0.000	133%	133%	99.55
	Oct	316.48	402.55	0.00	0.000	127%	127%	86.07
	Nov	312.42	402.55	0.00	0.000	129%	129%	90.13
	Dec	313.58	402.55	0.00	0.000	128%	128%	88.97
2024	Jan	307.36	402.55	0.00	0.000	131%	131%	95.19
	Feb	303.84	402.55	0.00	0.000	132%	132%	98.71
	Mar	303.15	402.55	0.00	0.000	133%	133%	99.40
	Apr	316.10	402.55	0.00	0.000	127%	127%	86.45
	May	322.22	402.55	0.00	0.000	125%	125%	80.33
	Jun	316.26	402.55	0.00	0.000	127%	127%	86.29
	Jul	314.71	402.55	0.00	0.000	128%	128%	87.84
	Aug	316.64	402.55	0.00	0.000	127%	127%	85.91

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Sep	307.51	402.55	0.00	0.000	131%	131%	95.04
	Oct	321.19	402.55	0.00	0.000	125%	125%	81.36
	Nov	317.07	402.55	0.00	0.000	127%	127%	85.48
	Dec	318.24	402.55	0.00	0.000	126%	126%	84.31
2025	Jan	311.83	402.55	0.00	0.000	129%	129%	90.72
	Feb	308.26	402.55	0.00	0.000	131%	131%	94.29
	Mar	307.56	402.55	0.00	0.000	131%	131%	94.99
	Apr	320.70	402.55	0.00	0.000	126%	126%	81.85
	May	326.91	400.95	0.00	0.000	123%	123%	74.04
	Jun	320.86	400.95	0.00	0.000	125%	125%	80.09
	Jul	319.29	400.95	0.00	0.000	126%	126%	81.66
	Aug	321.24	400.95	0.00	0.000	125%	125%	79.71
	Sep	311.98	400.95	0.00	0.000	129%	129%	88.97
	Oct	325.86	400.95	0.00	0.000	123%	123%	75.09
	Nov	321.68	400.95	0.00	0.000	125%	125%	79.27
	Dec	322.87	400.95	0.00	0.000	124%	124%	78.08
2026	Jan	316.28	265.95	0.00	50.325	84%	100%	0.00
	Feb	312.66	235.95	0.00	76.708	75%	100%	0.00
	Mar	311.94	235.95	0.00	75.994	76%	100%	0.00
	Apr	325.27	235.95	0.00	89.323	73%	100%	0.00
	May	331.57	235.95	0.00	95.625	71%	100%	0.00
	Jun	325.43	235.95	0.00	89.485	73%	100%	0.00
	Jul	323.84	235.95	0.00	87.894	73%	100%	0.00
	Aug	325.82	235.95	0.00	89.873	72%	100%	0.00
	Sep	316.43	235.95	0.00	80.479	75%	100%	0.00
	Oct	330.51	228.95	0.00	101.558	69%	100%	0.00
	Nov	326.27	228.95	0.00	97.318	70%	100%	0.00
	Dec	327.47	228.95	0.00	98.521	70%	100%	0.00
2027	Jan	320.69	228.95	0.00	91.741	71%	100%	0.00
	Feb	317.02	228.95	0.00	88.074	72%	100%	0.00
	Mar	316.30	228.95	0.00	87.349	72%	100%	0.00
	Apr	329.81	228.95	0.00	100.865	69%	100%	0.00
	May	336.20	228.95	0.00	107.255	68%	100%	0.00
	Jun	329.98	228.95	0.00	101.029	69%	100%	0.00
	Jul	328.37	228.95	0.00	99.416	70%	100%	0.00
	Aug	330.37	228.95	0.00	101.423	69%	100%	0.00
	Sep	320.85	228.95	0.00	91.897	71%	100%	0.00
	Oct	335.12	228.95	0.00	106.173	68%	100%	0.00
	Nov	330.82	228.95	0.00	101.873	69%	100%	0.00
	Dec	332.04	228.95	0.00	103.094	69%	100%	0.00
2028	Jan	325.07	228.95	0.00	96.120	70%	100%	0.00
	Feb	321.35	228.95	0.00	92.402	71%	100%	0.00
	Mar	320.62	228.95	0.00	91.668	71%	100%	0.00
	Apr	334.32	228.95	0.00	105.367	68%	100%	0.00
	May	340.79	228.95	0.00	111.845	67%	100%	0.00
	Jun	334.48	228.95	0.00	105.534	68%	100%	0.00

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Jul	332.85	228.95	0.00	103.899	69%	100%	0.00
	Aug	334.88	228.95	0.00	105.933	68%	100%	0.00
	Sep	325.23	228.95	0.00	96.277	70%	100%	0.00
	Oct	339.70	228.95	0.00	110.748	67%	100%	0.00
	Nov	335.34	228.95	0.00	106.390	68%	100%	0.00
	Dec	336.58	228.95	0.00	107.627	68%	100%	0.00
2029	Jan	329.42	228.95	0.00	100.469	70%	100%	0.00
	Feb	325.65	228.95	0.00	96.702	70%	100%	0.00
	Mar	324.91	228.95	0.00	95.958	70%	100%	0.00
	Apr	338.79	228.95	0.00	109.841	68%	100%	0.00
	May	345.35	228.95	0.00	116.405	66%	100%	0.00
	Jun	338.96	228.95	0.00	110.010	68%	100%	0.00
	Jul	337.30	228.95	0.00	108.353	68%	100%	0.00
	Aug	339.36	228.95	0.00	110.414	67%	100%	0.00
	Sep	329.58	228.95	0.00	100.629	69%	100%	0.00
	Oct	344.24	228.95	0.00	115.293	67%	100%	0.00
	Nov	339.83	228.95	0.00	110.877	67%	100%	0.00
	Dec	341.08	228.95	0.00	112.130	67%	100%	0.00
2030	Jan	333.74	228.95	0.00	104.790	69%	100%	0.00
	Feb	329.92	228.95	0.00	100.973	69%	100%	0.00
	Mar	329.17	228.95	0.00	100.219	70%	100%	0.00
	Apr	343.23	228.95	0.00	114.285	67%	100%	0.00
	May	349.88	228.95	0.00	120.935	65%	100%	0.00
	Jun	343.41	228.95	0.00	114.456	67%	100%	0.00
	Jul	341.73	228.95	0.00	112.778	67%	100%	0.00
	Aug	343.82	228.95	0.00	114.866	67%	100%	0.00
	Sep	333.90	228.95	0.00	104.952	69%	100%	0.00
	Oct	348.76	228.95	0.00	119.809	66%	100%	0.00
	Nov	344.28	228.95	0.00	115.334	67%	100%	0.00
	Dec	345.55	228.95	0.00	116.604	66%	100%	0.00

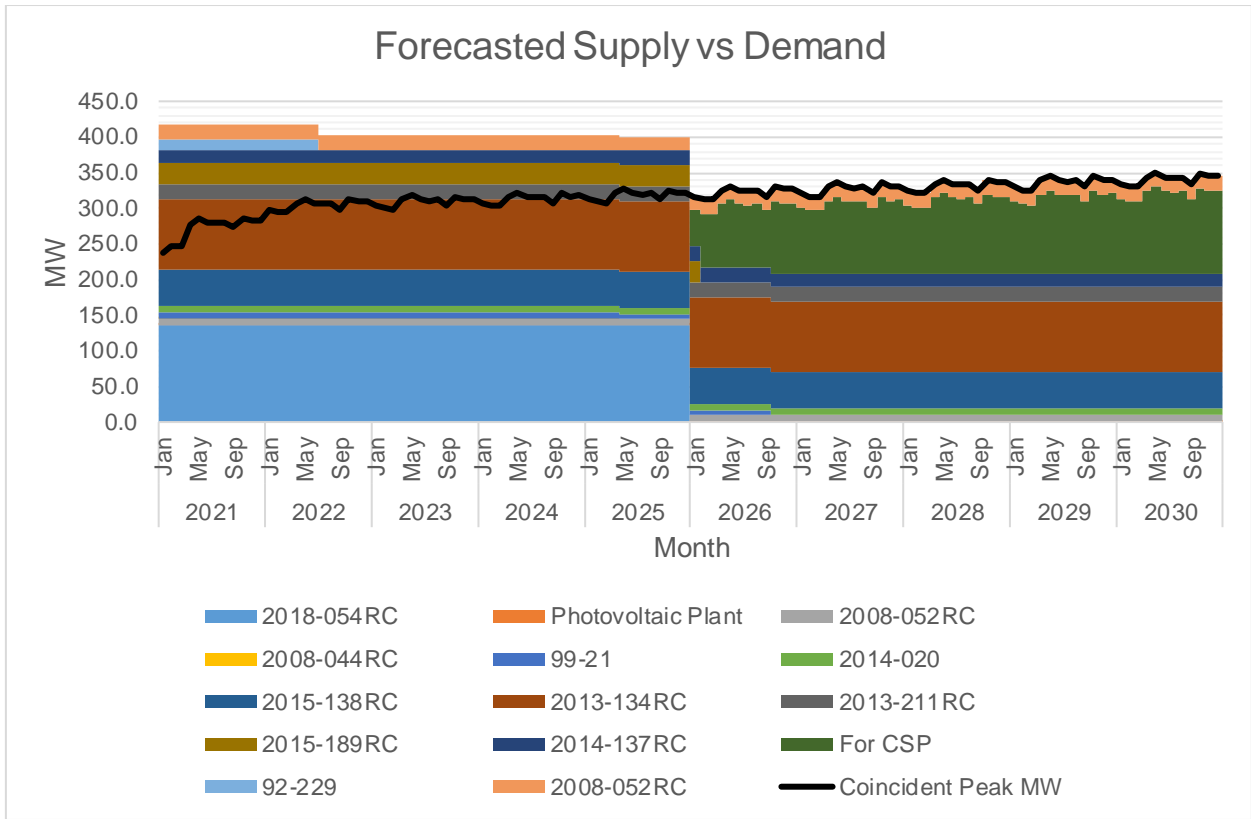
The Peak Demand was forecasted using ARIMA for normal growth plus indicative and was assumed to occur on the month of May due to the effect of summer season based on historical load profile. Monthly Peak Demand is at its lowest on the month of March based on historical load profile. In general, Peak Demand is expected to grow at a rate of 1.39% annually.



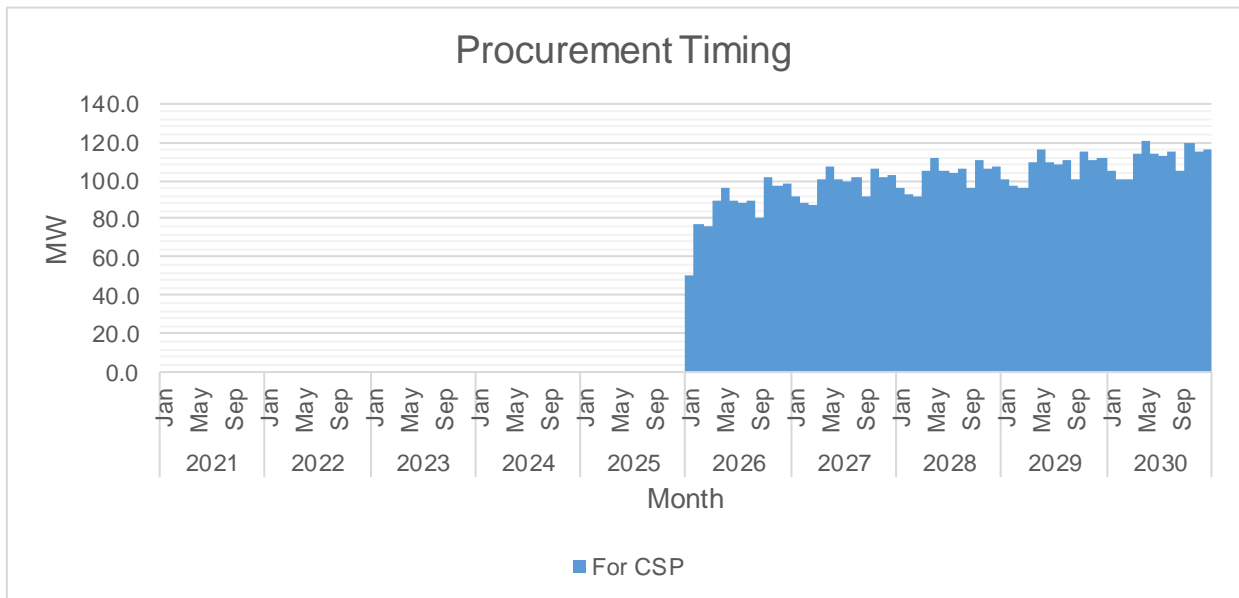
The available supply is generally above the Peak Demand until 2025. Starting 2026, available supply is below the Peak Demand due to the entry of large load and no renewal of CSEE from PSALM. The lack of MW demand will be solved by the Planned MW from additional suppliers through CSP. The renewal of CSEE with PSALM for year 2026 onwards will reduce the needed additional MW supply for CSP. It is also assumed that there is no migration of customers considered in the derivation of the additional supply for CSP.

There are barangays in the City of Cagayan de Oro that are not part of the franchise granted to CEPALCO under RA 9284. These barangays are Baikington, San Simon, Pagatpat, Tagpangi, Pagalungan, Taglimao, Tuburan, Pigsag-an, Tumpagon, Bayanga, Mambuaya, Dansolihon, Tignapoloan, Besigan and a portion of Canitoan.

Also there are portions of some barangays that are currently served by adjacent electric cooperatives. There is no S4R agreement with the concerned electric cooperatives for these areas. These areas are under protest.



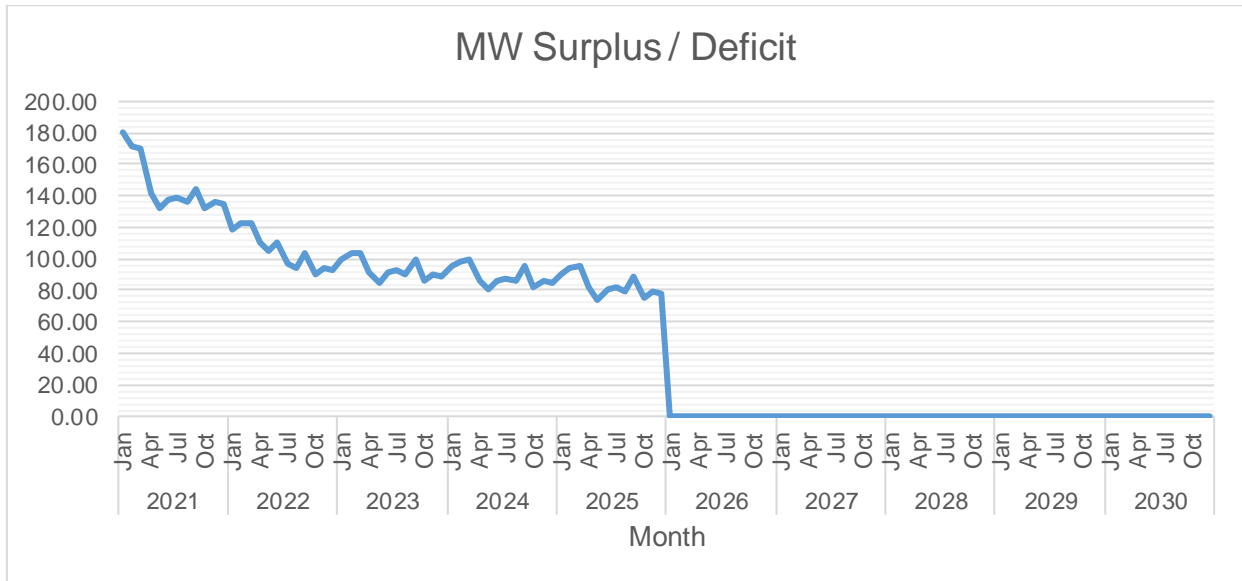
Of the available supply, the largest is 150 MW from Minergy Power Corporation (Coal). This is followed by 100 MW from CSEE-PSALM starting 2nd quarter of 2020 until 2025.



The first wave of supply procurement will be for 116.40 MW planned to be available by the month of January 2026.



As of 2020, there is over-contracting by 70.81%. The highest target contracting level is 167% which is occurred on the month of March 2021. The lowest target contracting level is 100% which is expected to occur on January 2026.



As of 2020, there is over-contracting by 158.05 MW. The highest surplus is 167.29 MW which occurred on the month of March 2021. The lowest surplus is 0 MW which is expected to occur on the month of January 2026.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	156,724	107,380	7,556	26.66%	6.57%
	Feb	156,724	116,046	4,961	22.79%	4.10%
	Mar	156,724	112,076	3,696	26.13%	3.19%
	Apr	156,724	108,141	6,485	26.86%	5.66%
	May	156,724	109,706	6,579	25.80%	5.66%
	Jun	156,724	111,424	6,682	24.64%	5.66%
	Jul	156,724	111,695	6,698	24.46%	5.66%
	Aug	156,724	113,559	6,810	23.20%	5.66%
	Sep	156,724	106,735	6,400	27.81%	5.66%

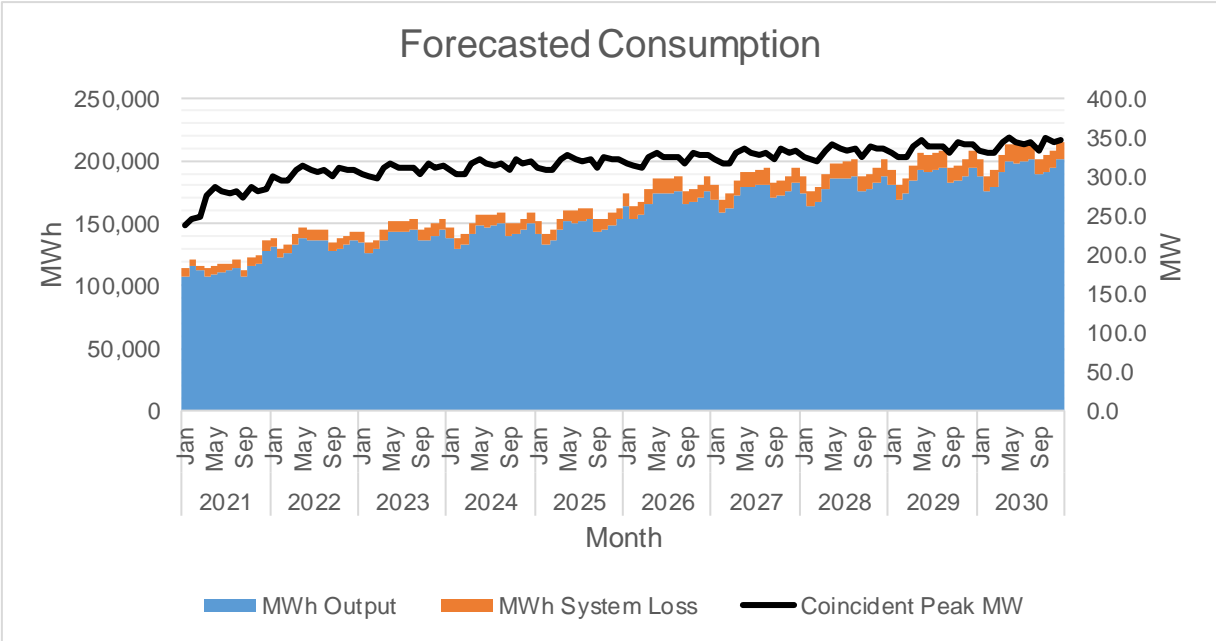
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Oct	156,724	116,141	6,964	21.45%	5.66%
	Nov	156,724	117,374	7,038	20.62%	5.66%
	Dec	156,724	127,845	7,666	13.53%	5.66%
2022	Jan	156,729	130,384	8,034	11.68%	5.80%
	Feb	156,729	122,038	7,520	17.34%	5.80%
	Mar	156,729	125,768	7,750	14.81%	5.80%
	Apr	156,729	132,922	8,190	9.96%	5.80%
	May	156,729	137,432	8,468	6.91%	5.80%
	Jun	156,729	135,755	8,365	8.05%	5.80%
	Jul	146,029	135,819	8,369	1.26%	5.80%
	Aug	146,029	137,031	8,444	0.38%	5.80%
	Sep	146,029	127,574	7,861	7.25%	5.80%
	Oct	146,029	129,264	7,965	6.03%	5.80%
	Nov	146,029	132,157	8,143	3.92%	5.80%
	Dec	146,029	135,580	8,354	1.43%	5.80%
2023	Jan	146,033	134,277	8,454	2.26%	5.92%
	Feb	146,033	126,090	7,939	8.22%	5.92%
	Mar	146,033	128,925	8,117	6.16%	5.92%
	Apr	146,033	136,911	8,620	0.34%	5.92%
	May	151,995	142,992	9,003	0.00%	5.92%
	Jun	151,924	142,925	8,998	0.00%	5.92%
	Jul	152,562	143,526	9,036	0.00%	5.92%
	Aug	153,738	144,632	9,106	0.00%	5.92%
	Sep	146,033	136,047	8,565	0.97%	5.92%
	Oct	146,033	137,113	8,633	0.20%	5.92%
	Nov	149,160	140,325	8,835	0.00%	5.92%
	Dec	153,753	144,646	9,107	0.00%	5.92%
2024	Jan	147,343	138,475	8,868	0.00%	6.02%
	Feb	146,038	130,019	8,327	5.27%	6.02%
	Mar	146,038	132,946	8,514	3.14%	6.02%
	Apr	150,249	141,206	9,043	0.00%	6.02%
	May	156,934	147,489	9,445	0.00%	6.02%
	Jun	156,861	147,420	9,441	0.00%	6.02%
	Jul	157,518	148,037	9,480	0.00%	6.02%
	Aug	158,734	149,181	9,554	0.00%	6.02%
	Sep	149,290	140,305	8,985	0.00%	6.02%
	Oct	150,461	141,406	9,056	0.00%	6.02%
	Nov	153,995	144,726	9,268	0.00%	6.02%
	Dec	158,744	149,189	9,554	0.00%	6.02%
2025	Jan	150,910	141,670	9,241	0.00%	6.12%
	Feb	146,043	133,018	8,676	2.98%	6.12%
	Mar	146,043	136,027	8,873	0.78%	6.12%
	Apr	153,930	144,504	9,425	0.00%	6.12%
	May	160,755	150,912	9,843	0.00%	6.12%
	Jun	160,682	150,843	9,839	0.00%	6.12%
	Jul	161,338	151,459	9,879	0.00%	6.12%
	Aug	162,594	152,638	9,956	0.00%	6.12%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Sep	152,926	143,562	9,364	0.00%	6.12%
	Oct	154,119	144,682	9,437	0.00%	6.12%
	Nov	157,738	148,079	9,659	0.00%	6.12%
	Dec	162,592	152,636	9,956	0.00%	6.12%
2026	Jan	174,303	163,428	10,875	0.00%	6.24%
	Feb	163,408	153,213	10,195	0.00%	6.24%
	Mar	167,300	156,862	10,438	0.00%	6.24%
	Apr	177,276	166,215	11,060	0.00%	6.24%
	May	185,341	173,777	11,564	0.00%	6.24%
	Jun	185,080	173,533	11,547	0.00%	6.24%
	Jul	186,248	174,627	11,620	0.00%	6.24%
	Aug	187,340	175,651	11,688	0.00%	6.24%
	Sep	175,811	164,842	10,969	0.00%	6.24%
	Oct	177,399	166,331	11,068	0.00%	6.24%
	Nov	181,621	170,289	11,331	0.00%	6.24%
	Dec	187,487	175,790	11,697	0.00%	6.24%
2027	Jan	180,360	168,917	11,443	0.00%	6.34%
	Feb	169,065	158,339	10,726	0.00%	6.34%
	Mar	173,123	162,139	10,984	0.00%	6.34%
	Apr	183,435	171,797	11,638	0.00%	6.34%
	May	191,774	179,607	12,167	0.00%	6.34%
	Jun	191,493	179,343	12,149	0.00%	6.34%
	Jul	192,718	180,491	12,227	0.00%	6.34%
	Aug	193,828	181,531	12,297	0.00%	6.34%
	Sep	181,874	170,335	11,539	0.00%	6.34%
	Oct	183,528	171,885	11,644	0.00%	6.34%
	Nov	187,900	175,979	11,921	0.00%	6.34%
	Dec	193,981	181,674	12,307	0.00%	6.34%
2028	Jan	186,761	174,681	12,080	0.00%	6.47%
	Feb	175,042	163,720	11,322	0.00%	6.47%
	Mar	179,275	167,679	11,596	0.00%	6.47%
	Apr	189,942	177,656	12,286	0.00%	6.47%
	May	198,571	185,727	12,844	0.00%	6.47%
	Jun	198,267	185,442	12,824	0.00%	6.47%
	Jul	199,554	186,647	12,908	0.00%	6.47%
	Aug	200,683	187,703	12,981	0.00%	6.47%
	Sep	188,277	176,099	12,178	0.00%	6.47%
	Oct	190,003	177,713	12,290	0.00%	6.47%
	Nov	194,533	181,950	12,583	0.00%	6.47%
	Dec	200,843	187,852	12,991	0.00%	6.47%
2029	Jan	193,498	180,743	12,755	0.00%	6.59%
	Feb	181,331	169,378	11,953	0.00%	6.59%
	Mar	185,750	173,506	12,244	0.00%	6.59%
	Apr	196,787	183,815	12,972	0.00%	6.59%
	May	205,723	192,162	13,561	0.00%	6.59%
	Jun	205,394	191,855	13,539	0.00%	6.59%
	Jul	206,749	193,121	13,629	0.00%	6.59%

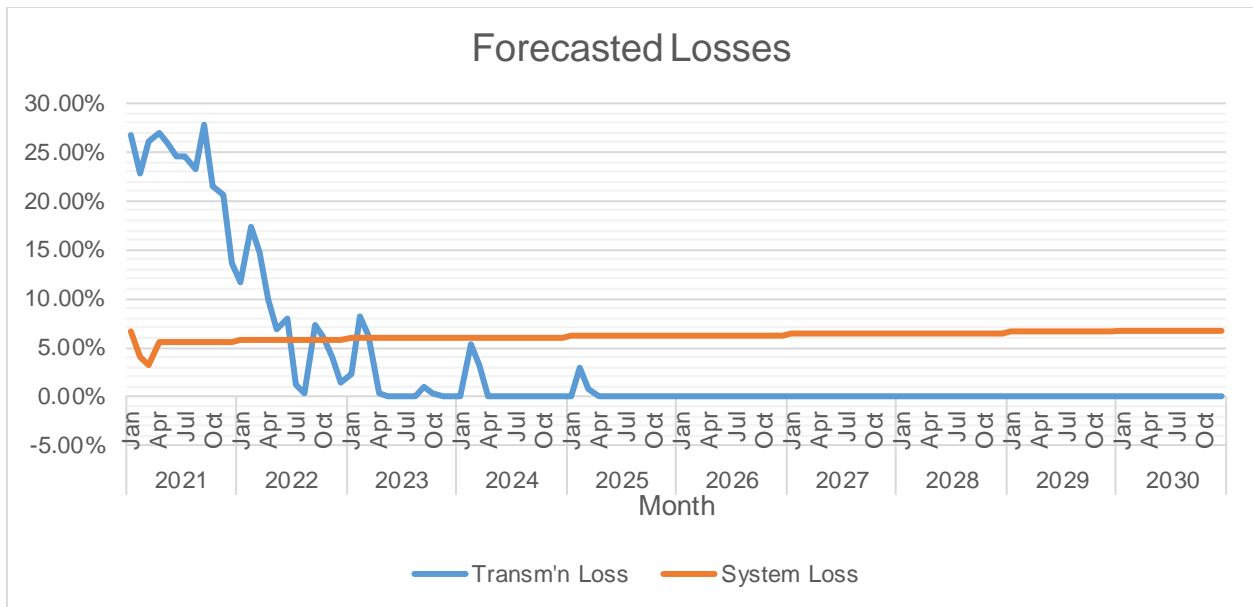
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Aug	207,896	194,192	13,704	0.00%	6.59%
	Sep	195,013	182,158	12,855	0.00%	6.59%
	Oct	196,815	183,841	12,974	0.00%	6.59%
	Nov	201,512	188,228	13,283	0.00%	6.59%
	Dec	208,063	194,348	13,715	0.00%	6.59%
2030	Jan	200,554	187,128	13,425	0.00%	6.69%
	Feb	187,916	175,337	12,579	0.00%	6.69%
	Mar	192,532	179,643	12,888	0.00%	6.69%
	Apr	203,954	190,301	13,653	0.00%	6.69%
	May	213,212	198,939	14,273	0.00%	6.69%
	Jun	212,855	198,607	14,249	0.00%	6.69%
	Jul	214,284	199,940	14,345	0.00%	6.69%
	Aug	215,447	201,025	14,422	0.00%	6.69%
	Sep	202,063	188,537	13,526	0.00%	6.69%
	Oct	203,945	190,293	13,652	0.00%	6.69%
	Nov	208,817	194,839	13,979	0.00%	6.69%
	Dec	215,623	201,189	14,434	0.00%	6.69%

MWh Offtake was forecasted using linear regression using Gross Regional Domestic Product (GRDP) or Northern Mindanao as predictor.

System Loss was calculated through a Load Flow Study conducted on 2019 and 2020 by CEPALCO using Synergi Electric software and PSS/E 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 6.61% annually.



The Forecasted Transmission Loss derived from the PSPP 2021 template is not realistic for CEPALCO. Transmission Loss is calculated by subtracting the Total kWh at the NGCP Metering Points to the Total kWh measured at Plant Gate of Grid connected generators. Since CSEE-PSALM, one of CEPALCO's Grid suppliers, provides kWh measured at the metering point instead of their Plant Gate, CEPALCO is constrained to determine the Transmission Loss using the above formula. Hence, CEPALCO cannot determine its Forecasted Transmission Loss. On other hand, System Loss is expected to range from 5.80% to 6.69%.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2018-054RC	Base	Other	135.00	55,000	1/1/2020	1/1/2026
Photovoltaic Plant	Base	DU-owned	0.95	1,277	1/1/2008	1/1/2040
92-229	Peaking	Mindanao Energy Systems, Inc.	15.31	128,400	6/1/1995	6/1/2022
2008-052RC	Peaking	Mindanao Energy Systems, Inc.	20.00	126,900	1/1/2012	1/1/2032
2008-052RC	Base	Mindanao Energy Systems, Inc.	8.00	63,111	10/1/2012	10/1/2042
2008-044RC	Base	FG Bukidnon Power Corporation	1.60	12,933	4/1/2005	4/1/2025
99-21	Base	Bubunawan Power Company, Inc.	7.00	30,872	9/1/2001	9/1/2026
2013-211RC	Intermediate	Therma South, Inc.	20.00	153,600	10/1/2014	10/1/2039
2014-020	Base	Kirahon Solar Energy Corporation	10.00	17,790	10/1/2015	10/1/2040
2015-138RC	Base	Mindanao Energy Systems, Inc.	50.00	372,300	9/1/2017	9/1/2042
2013-134RC	Base	Mindanao Energy Systems, Inc.	100.00	744,600	9/1/2017	9/1/2042
2015-189RC	Intermediate	Mapalad Power Corporation	30.00	4,720	1/1/2016	1/1/2026
2014-137RC	Intermediate	Sarangani Energy Corporation	20.00	148,920	10/1/2014	10/1/2039

The PSA with PSALM filed with ERC under Case No. 2018-054RC was procured through CSEE. It was selected to provide for base requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 2.61 P/kWh to 3.02 P/KWh in 2020.

The PSA with Mindanao Energy Systems, Inc. filed with ERC under Case No. 92-229 was procured through CSP. It was selected to provide for peaking requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 1.06 P/kWh to 10.59 P/KWh in 2020.

The PSA with Mindanao Energy Systems, Inc. filed with ERC under Case No. 2008-052RC was procured through CSP. It was selected to provide for peaking requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 1.87 P/kWh to 8.88 P/KWh in 2020.

The PSA with Mindanao Energy Systems, Inc. filed with ERC under Case No. 2008-052RC was procured through CSP. It was selected to provide for base requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 5.22 P/kWh to 5.24 P/KWh in 2020.

The PSA with FG Bukidnon Power Corporation filed with ERC under Case No. 2008-044RC was procured through CSP. It was selected to provide for base requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 4.17 P/kWh to 4.48 P/KWh in 2020.

The PSA with Bubunawan Power Company, Inc. filed with ERC under Case No. 99-21 was procured through CSP. It was selected to provide for base requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 5.06 P/kWh to 5.09 P/KWh in 2020.

The PSA with Therma South, Inc. filed with ERC under Case No. 2013-211RC was procured through CSP. It was selected to provide for intermediate requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 7.18 P/kWh to 11.41 P/KWh in 2020.

The PSA with Kirahon Solar Energy Corporation filed with ERC under Case No. 2014-020 was procured through CSP. It was selected to provide for base requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 10.21 P/kWh to 10.36 P/KWh in 2020.

The PSA with Mindanao Energy Systems, Inc. filed with ERC under Case No. 2013-134RC was procured through CSP. It was selected to provide for base requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 5.85 P/kWh to 7.08 P/KWh in 2020.

The PSA with Mindanao Energy Systems, Inc. filed with ERC under Case No. 2015-138RC was procured through CSP. It was selected to provide for base requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 5.60 P/kWh to 6.08 P/KWh in 2020.

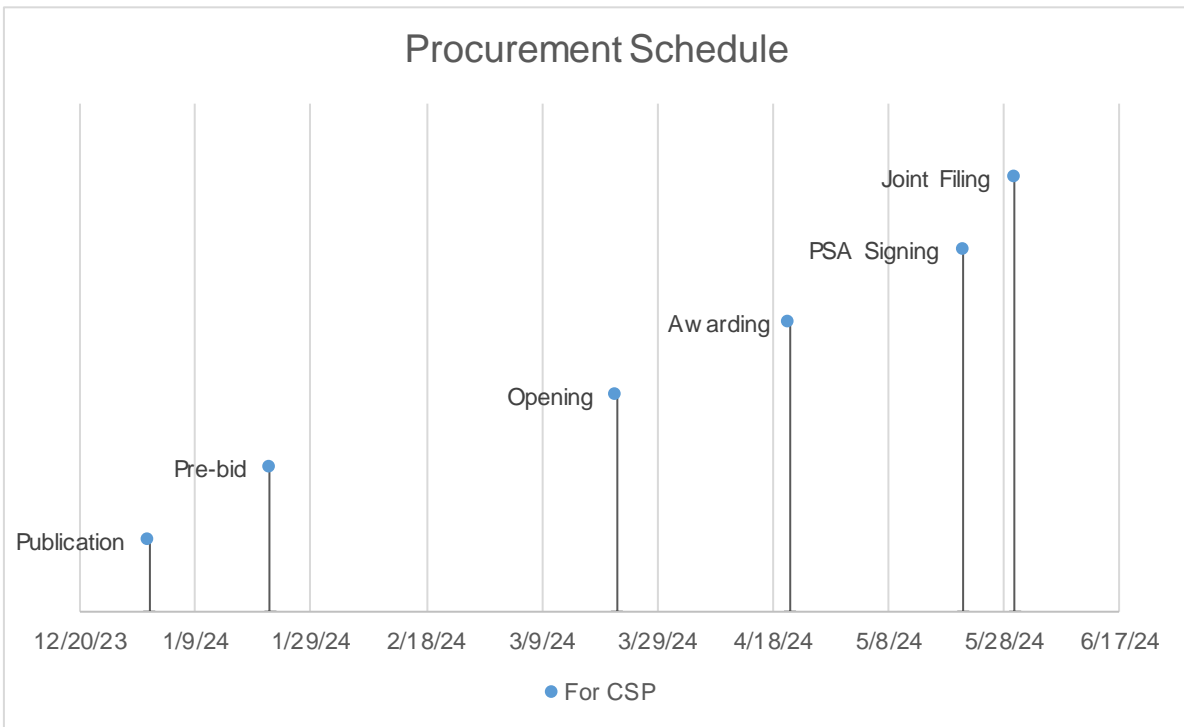
The PSA with Mapalad Power Corporation filed with ERC under Case No. 2015-189RC was procured through CSP. It was selected to provide for intermediate requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 0.68 P/kWh to 0.74 P/KWh in 2020.

The PSA with Sarangani Energy Corporation filed with ERC under Case No. 2014-137RC was procured through CSP. It was selected to provide for intermediate requirements due to increased demand. The actual billed overall monthly charge under the PSA ranged from 5.08 P/kWh to 12.64 P/KWh in 2020.

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
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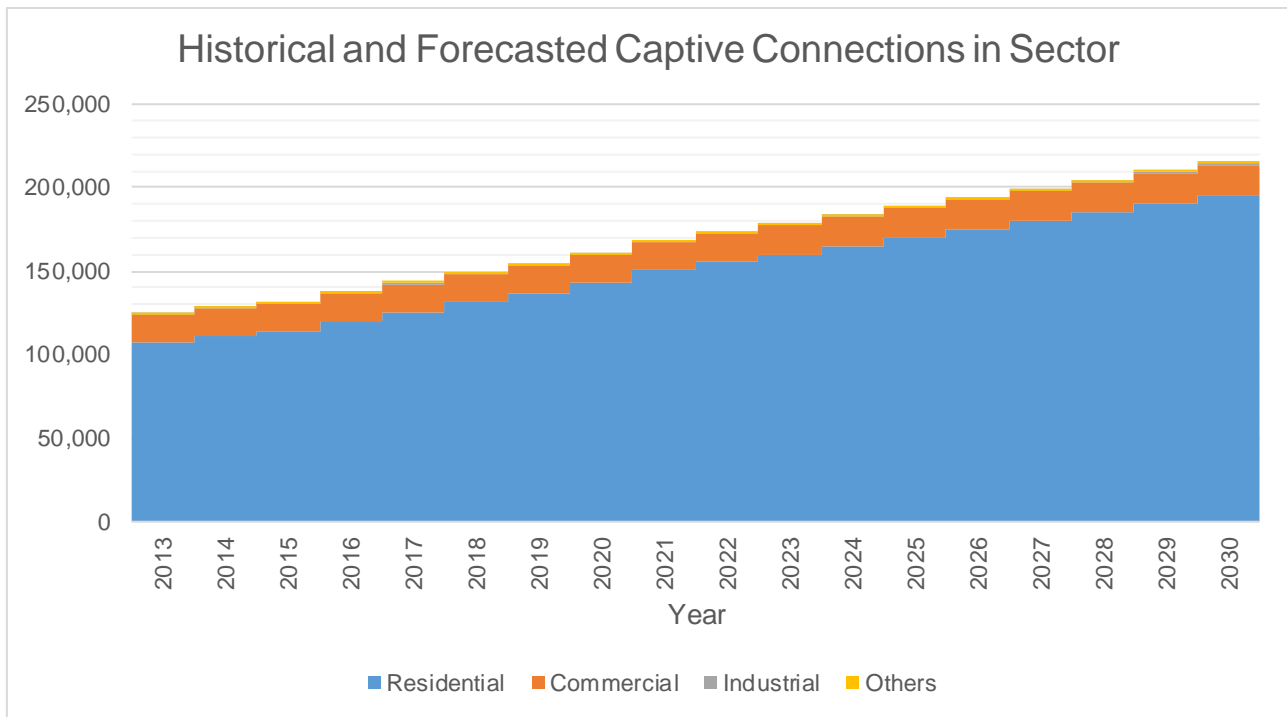
CEPALCO has no pending Power Supply Agreement (PSA).

	For CSP
Type	Intermediate
Minimum MW	116.40
Minimum MWh/yr	841,934
PSA Start	1/1/2026
PSA End	1/1/2040
Publication	1/1/2024
Pre-bid	1/22/2024
Opening	3/22/2024
Awarding	4/21/2024
PSA Signing	5/21/2024
Joint Filing	5/30/2024



For the procurement of 116.40 MW of supply which is planned to be available on 1/1/2026, the first publication or launch of CSP will be on 1/1/2024. Joint filing is planned on 5/30/2024, 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 15.27% of the total kWh consumption by year 2030.