

Power Supply Procurement Plan 2021

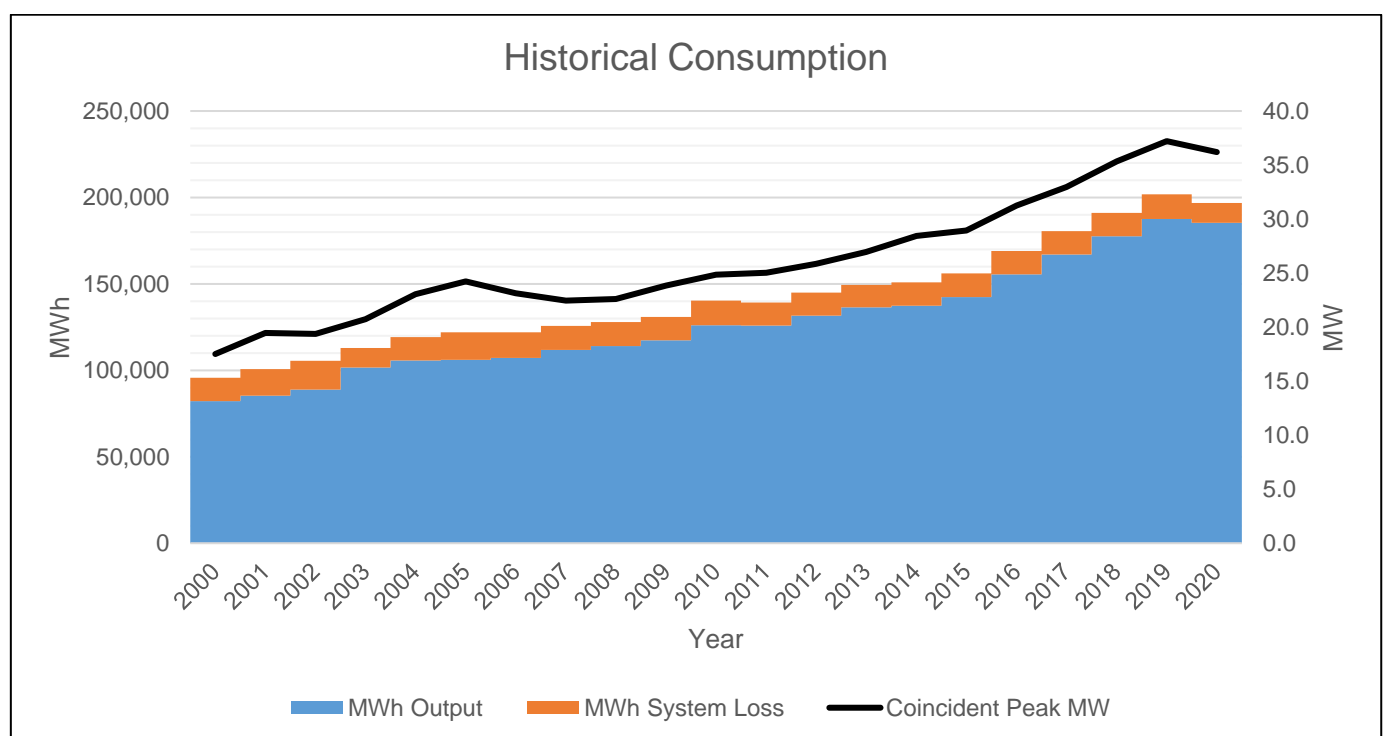
LA UNION ELECTRIC COMPANY, INC



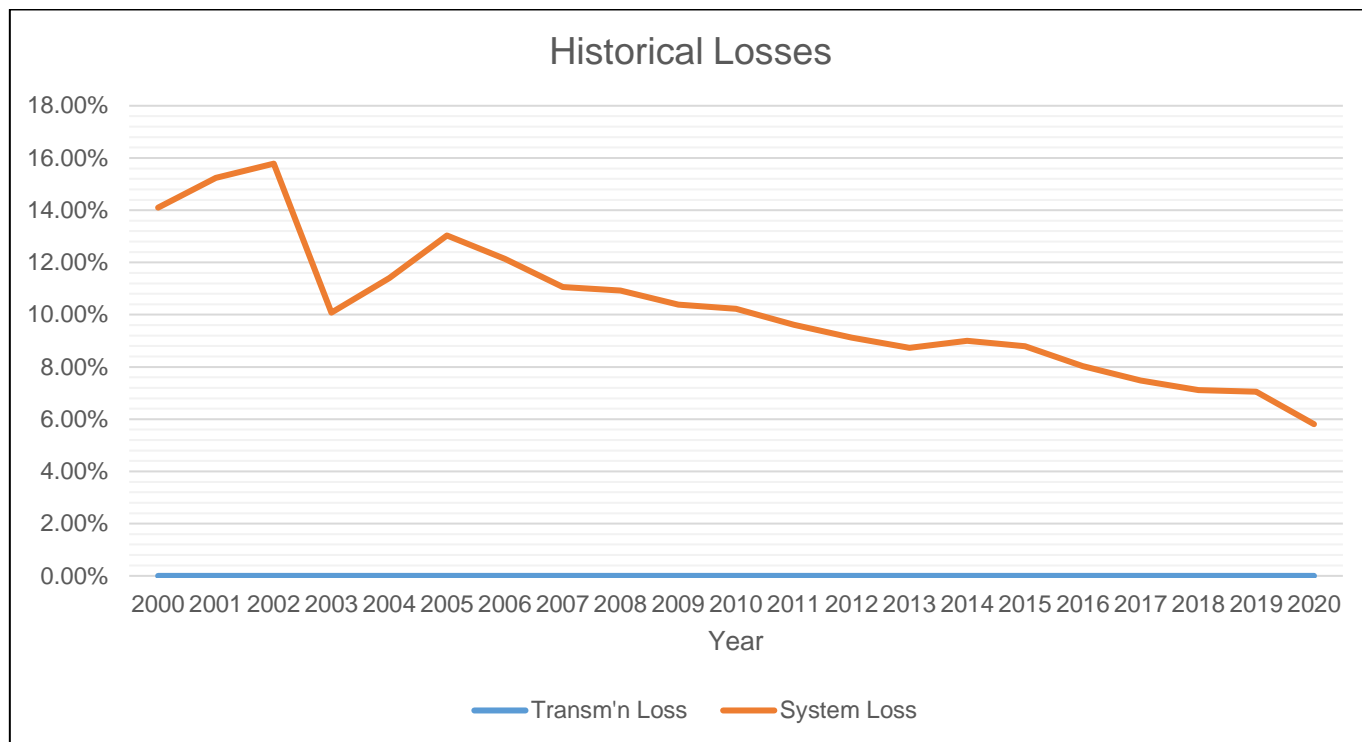
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	17.51	95,778	0	95,778	82,277	13,502	62%	0.00%	0.00%	14.10%
2001	19.46	100,622	0	100,622	85,282	15,339	59%	0.00%	0.00%	15.24%
2002	19.36	105,454	0	105,454	88,809	16,645	62%	0.00%	0.00%	15.78%
2003	20.74	112,975	0	112,975	101,595	11,381	62%	0.00%	0.00%	10.07%
2004	23.03	119,297	0	119,297	105,693	13,604	59%	0.00%	0.00%	11.40%
2005	24.23	121,923	0	121,923	106,039	15,883	57%	0.00%	0.00%	13.03%
2006	23.14	121,928	0	121,928	107,124	14,804	60%	0.00%	0.00%	12.14%
2007	22.46	125,690	0	125,690	111,783	13,907	64%	0.00%	0.00%	11.06%
2008	22.60	127,983	0	127,983	114,002	13,981	65%	0.00%	0.00%	10.92%
2009	23.84	130,972	0	130,972	117,375	13,598	63%	0.00%	0.00%	10.38%
2010	24.86	140,350	0	140,350	126,000	14,350	64%	0.00%	0.00%	10.22%
2011	25.03	139,257	0	139,257	125,863	13,395	64%	0.00%	0.00%	9.62%
2012	25.87	144,908	0	144,908	131,694	13,214	64%	0.00%	0.00%	9.12%
2013	26.96	149,438	0	149,438	136,387	13,050	63%	0.00%	0.00%	8.73%
2014	28.45	150,921	0	150,921	137,339	13,582	61%	0.00%	0.00%	9.00%
2015	28.94	156,082	0	156,082	142,353	13,728	62%	0.00%	0.00%	8.80%
2016	31.26	169,045	0	169,045	155,470	13,575	62%	0.00%	0.00%	8.03%
2017	32.98	180,494	0	180,494	166,990	13,503	62%	0.00%	0.00%	7.48%
2018	35.35	191,106	0	191,106	177,507	13,599	62%	0.00%	0.00%	7.12%
2019	37.21	201,775	0	201,775	187,553	14,222	62%	0.00%	0.00%	7.05%
2020	36.20	196,792	0	196,792	185,362	11,430	62%	0.00%	0.00%	5.81%

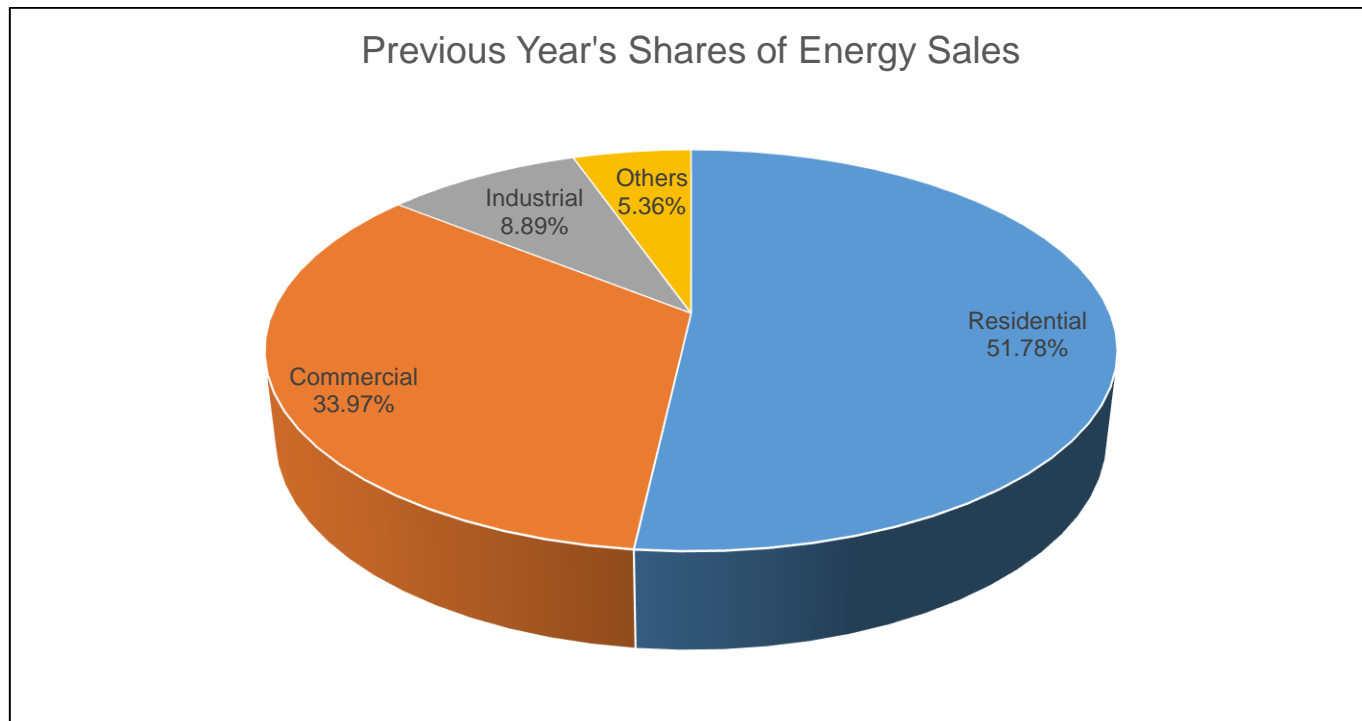
Peak Demand increased from 17.51 MW in year 2000 to 36.20 MW in year 2020 at a rate of 5.08% due to new customers and increased in consumptions. MWh Offtake increased from 95,778 MWh in year 2000 to 196,792 MWh in year 2020 at a rate of 5.02 % for the same reason. Within the same period, Load Factor ranged from 57% to 65%.



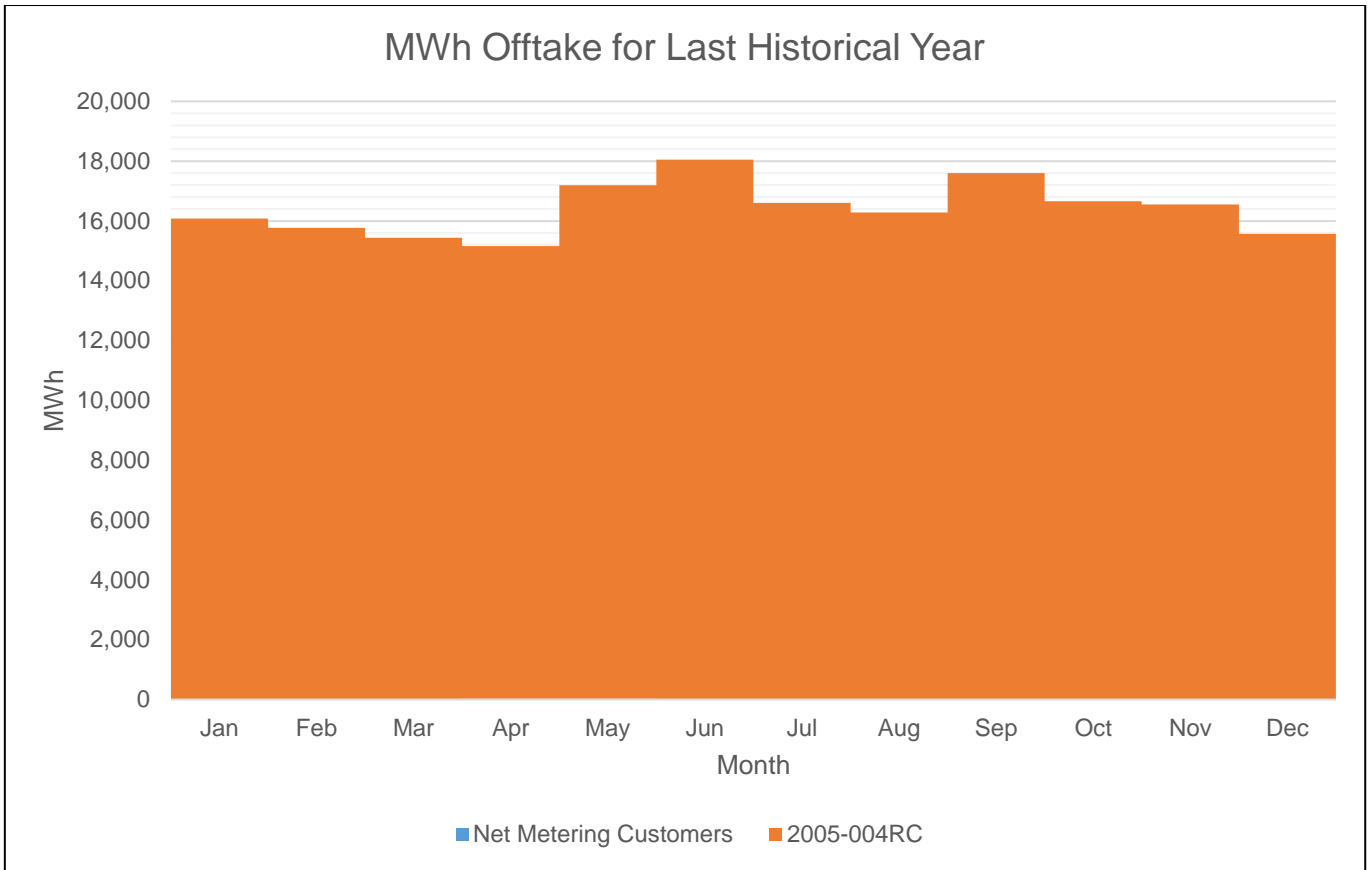
MWh Output increased from year 2000 to year 2020 at a rate of 5.97%, while MWh System Loss decreased at a rate of 45.63% within the same period.



Historically, System Loss ranged from 15.78% to 5.81%. System Loss has decreased over the years due to system loss reduction programs and anti-pilferage campaigns.

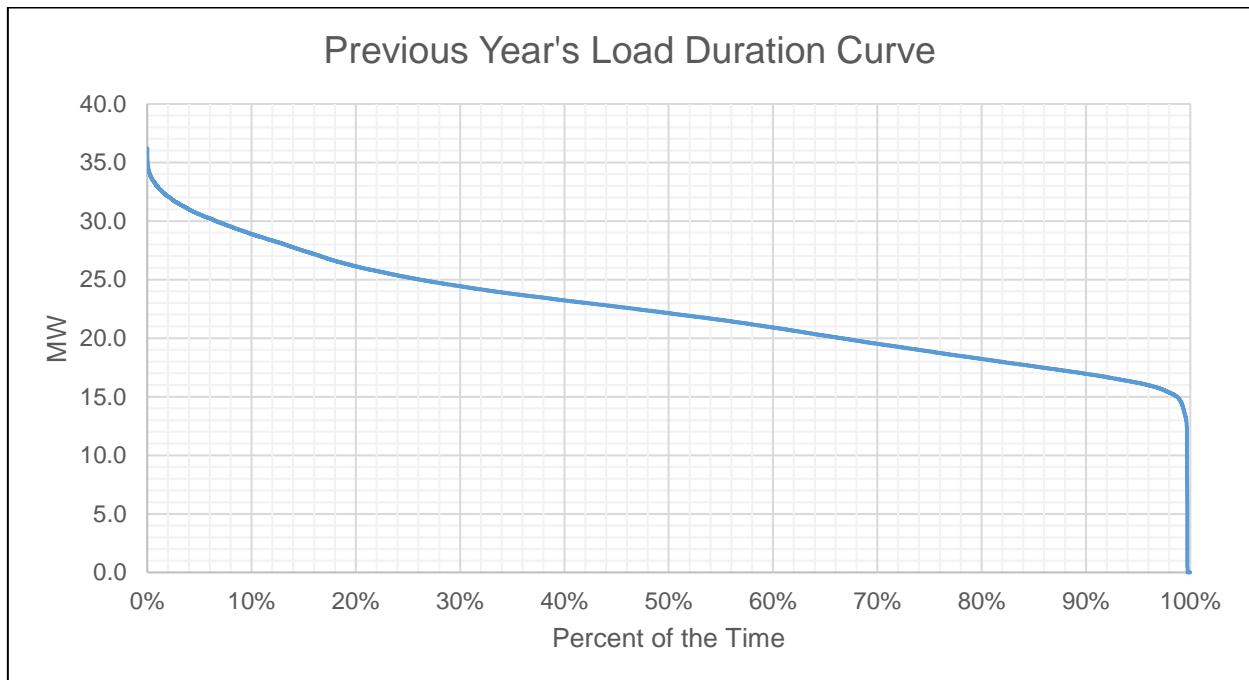


Residential customers account for the bulk of energy sales at 51.78% due to the high number of connections. In contrast, Industrial customers accounted for only 8.89% of energy sales due to the impact of Covid-19 pandemic resulting to reduction of services or non-operation of business.

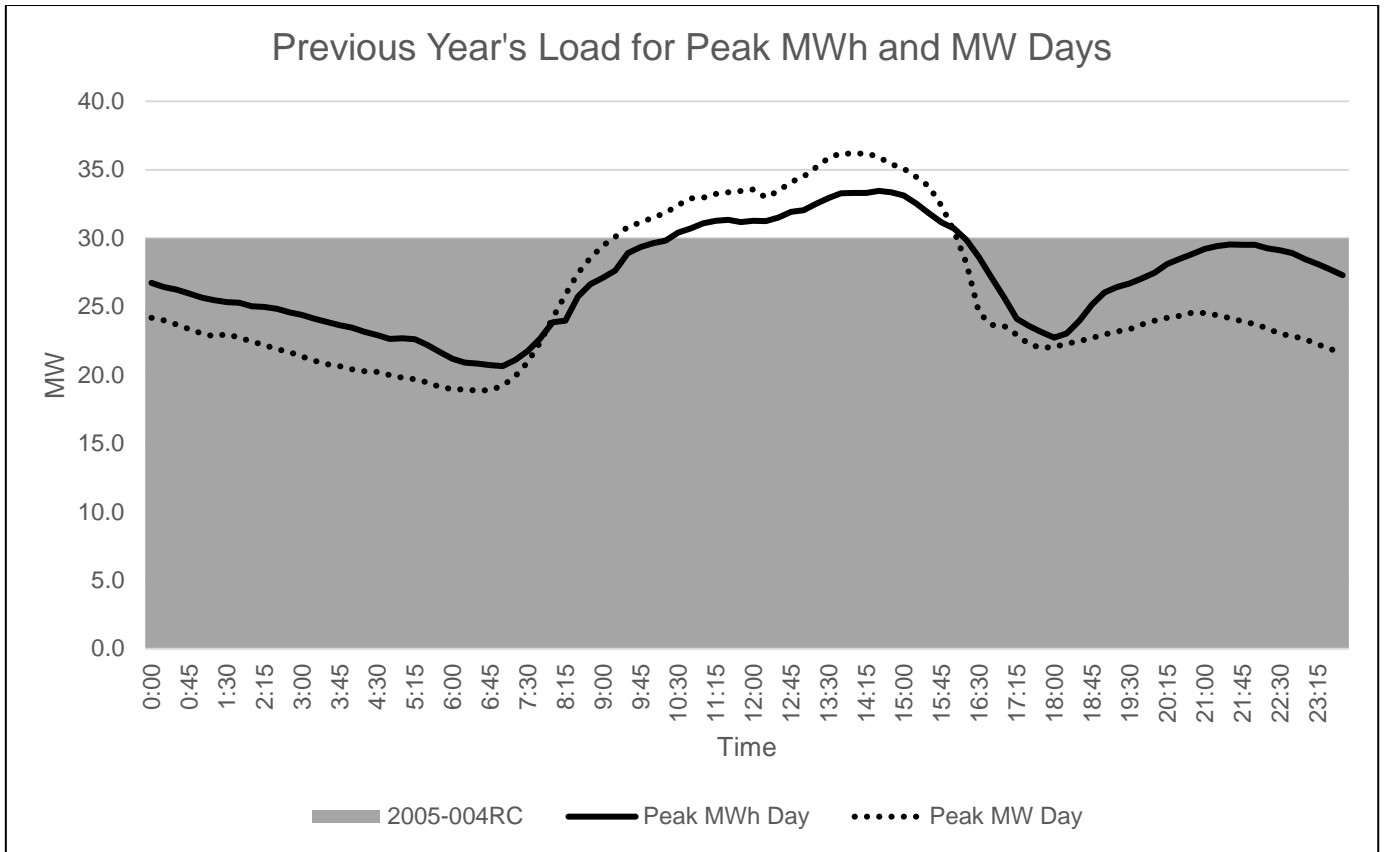


The total Offtake for the last historical year is same than the quantity stipulated in the PSA since its load-following.

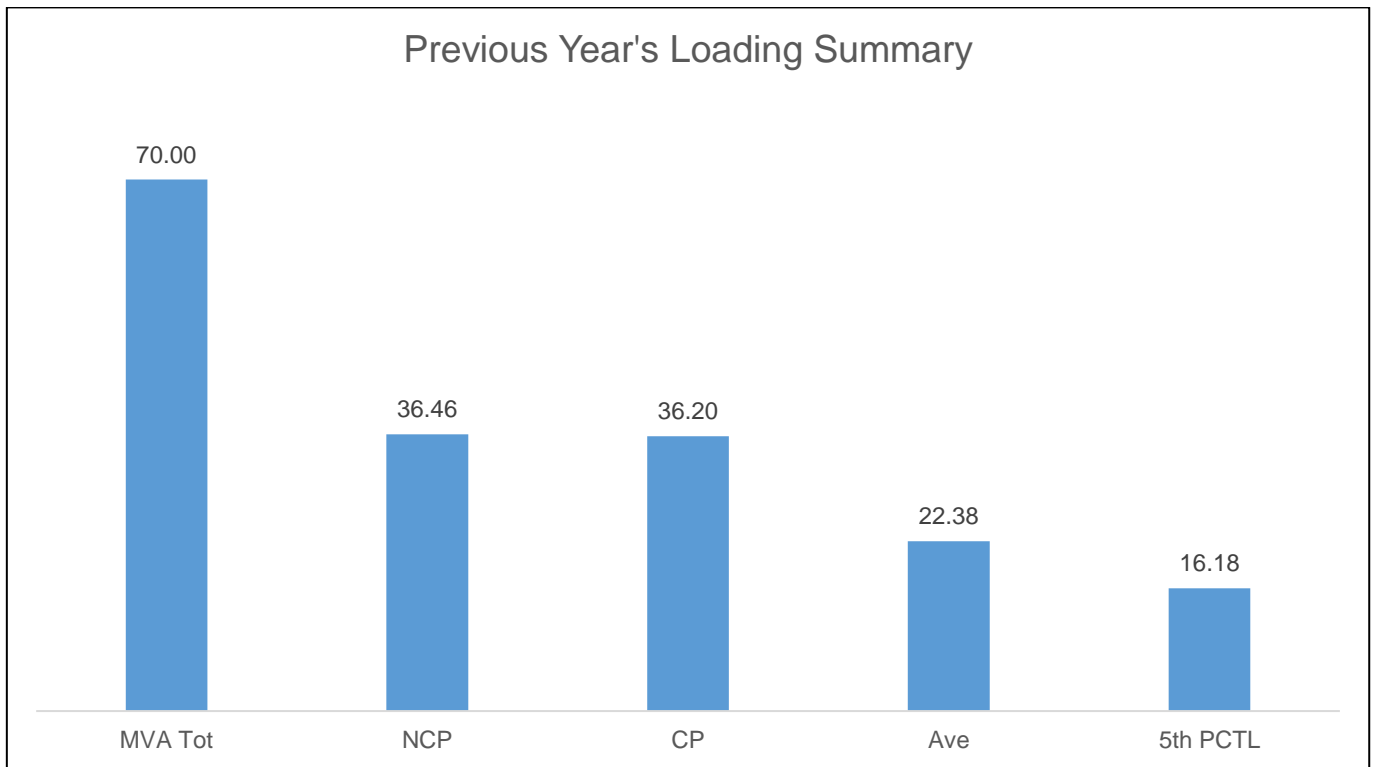
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 14.65 MW and the maximum load is 36.2 MW for the last historical year.



Peak MW of 36.2MW occurred at 14:15. Peak daily MWh of 33.12MWh occurred at 15:00. As shown in the Load Curves, the available supply is equal to the Peak Demand.



The Non-coincident Peak Demand is 36.46 MW, which is around 60.77% of the total substation capacity of 60 MVA at a power factor of 98%. The load factor or the ratio between the Average Load of 22.38 MW and the Non-coincident Peak Demand is 61.38%. A safe estimate of the true minimum load is the fifth percentile load of 16.18 MW which is 44.38% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
69kV	65	35.683
115kV	5	0.777

The substation loaded at above 70% is Poro Substation. This loading problem will be solved by additional 30MVA, 115kV/13.2kV at Poro Substation in 2021.

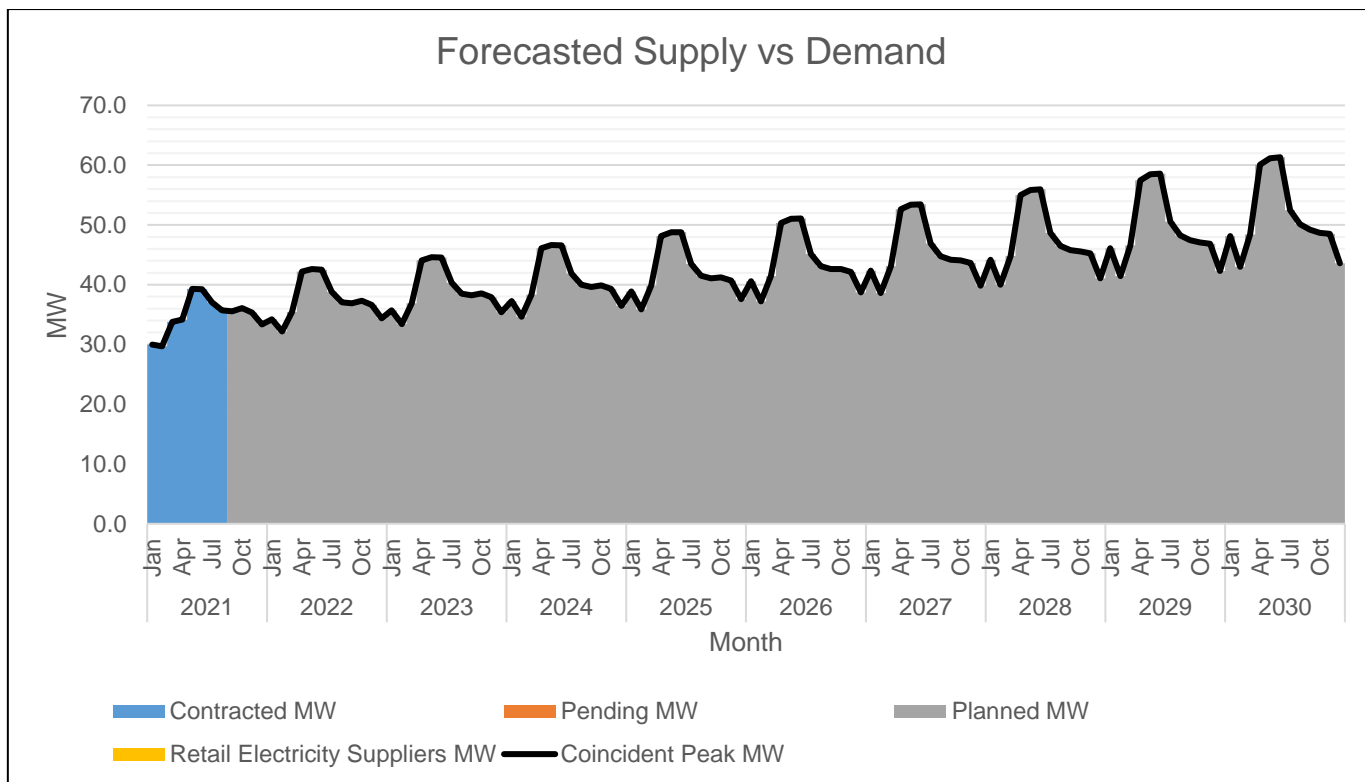
Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2021	Jan	29.98	29.98	0.00	0.000		100%	100%	0.00
	Feb	29.69	29.69	0.00	0.000		100%	100%	0.00
	Mar	33.80	33.80	0.00	0.000		100%	100%	0.00
	Apr	34.17	34.17	0.00	0.000		100%	100%	0.00
	May	39.28	39.28	0.00	0.000		100%	100%	0.00
	Jun	39.25	39.25	0.00	0.000		100%	100%	0.00
	Jul	37.07	37.07	0.00	0.000		100%	100%	0.00
	Aug	35.70	35.70	0.00	0.000		100%	100%	0.00
	Sep	35.57	0.00	0.00	35.571		0%	100%	0.00
	Oct	36.09	0.00	0.00	36.087		0%	100%	0.00
	Nov	35.35	0.00	0.00	35.352		0%	100%	0.00
	Dec	33.36	0.00	0.00	33.360		0%	100%	0.00
2022	Jan	34.21	0.00	0.00	34.211		0%	100%	0.00
	Feb	32.20	0.00	0.00	32.198		0%	100%	0.00
	Mar	35.46	0.00	0.00	35.459		0%	100%	0.00
	Apr	42.18	0.00	0.00	42.179		0%	100%	0.00
	May	42.61	0.00	0.00	42.609		0%	100%	0.00
	Jun	42.53	0.00	0.00	42.533		0%	100%	0.00
	Jul	38.83	0.00	0.00	38.831		0%	100%	0.00
	Aug	37.07	0.00	0.00	37.073		0%	100%	0.00
	Sep	36.88	0.00	0.00	36.876		0%	100%	0.00
	Oct	37.31	0.00	0.00	37.306		0%	100%	0.00
	Nov	36.62	0.00	0.00	36.618		0%	100%	0.00
	Dec	34.36	0.00	0.00	34.364		0%	100%	0.00
2023	Jan	35.70	0.00	0.00	35.703		0%	100%	0.00
	Feb	33.38	0.00	0.00	33.383		0%	100%	0.00
	Mar	36.87	0.00	0.00	36.866		0%	100%	0.00
	Apr	44.09	0.00	0.00	44.085		0%	100%	0.00
	May	44.58	0.00	0.00	44.578		0%	100%	0.00
	Jun	44.52	0.00	0.00	44.524		0%	100%	0.00
	Jul	40.32	0.00	0.00	40.322		0%	100%	0.00

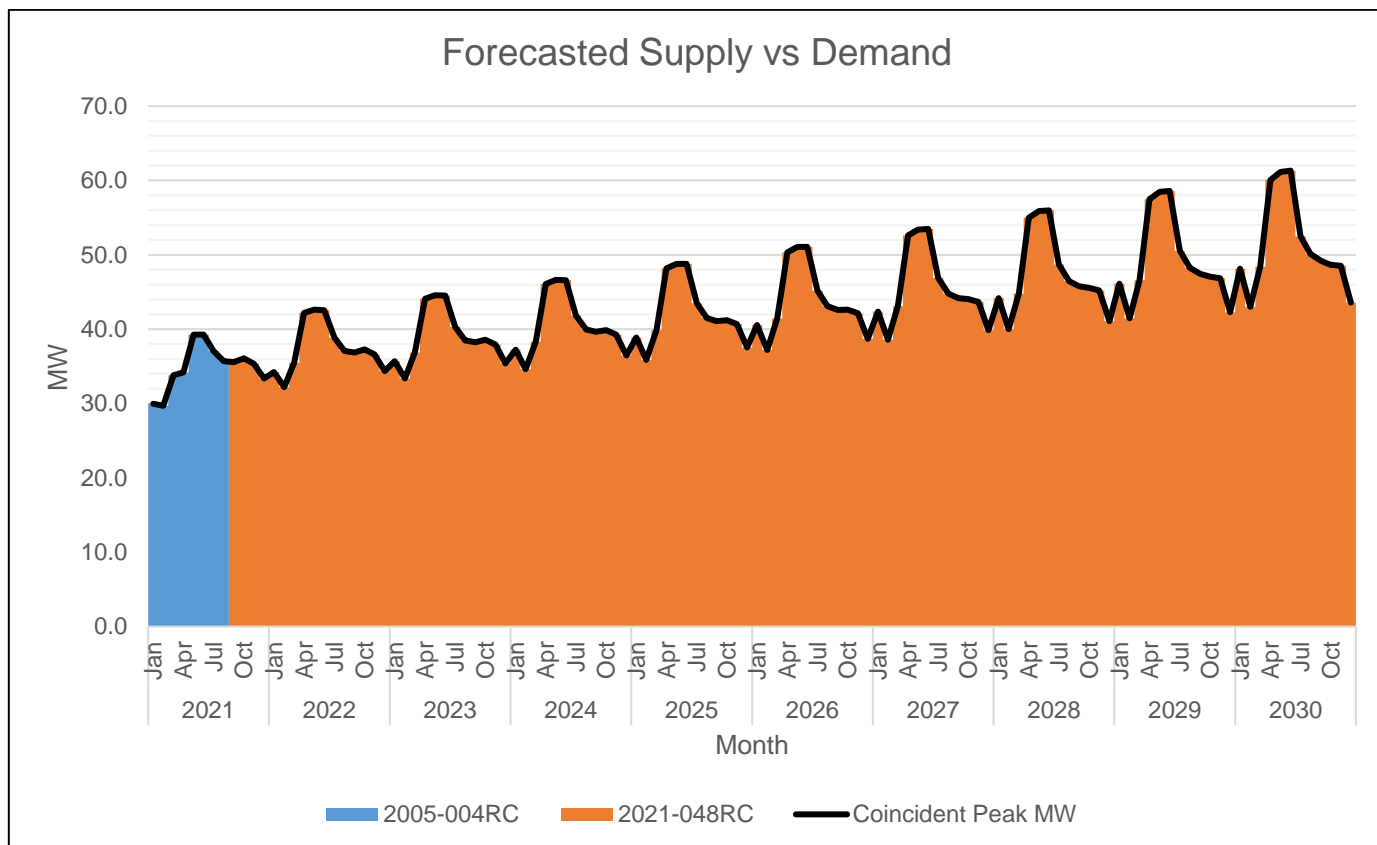
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Aug	38.50	0.00	0.00	38.496		0%	100%	0.00
	Sep	38.23	0.00	0.00	38.230		0%	100%	0.00
	Oct	38.57	0.00	0.00	38.567		0%	100%	0.00
	Nov	37.93	0.00	0.00	37.929		0%	100%	0.00
	Dec	35.40	0.00	0.00	35.399		0%	100%	0.00
2024	Jan	37.26	0.00	0.00	37.259		0%	100%	0.00
	Feb	34.61	0.00	0.00	34.612		0%	100%	0.00
	Mar	38.33	0.00	0.00	38.330		0%	100%	0.00
	Apr	46.08	0.00	0.00	46.078		0%	100%	0.00
	May	46.64	0.00	0.00	46.637		0%	100%	0.00
	Jun	46.61	0.00	0.00	46.608		0%	100%	0.00
	Jul	41.87	0.00	0.00	41.870		0%	100%	0.00
	Aug	39.97	0.00	0.00	39.974		0%	100%	0.00
	Sep	39.63	0.00	0.00	39.633		0%	100%	0.00
	Oct	39.87	0.00	0.00	39.871		0%	100%	0.00
	Nov	39.29	0.00	0.00	39.287		0%	100%	0.00
	Dec	36.46	0.00	0.00	36.464		0%	100%	0.00
2025	Jan	38.88	0.00	0.00	38.884		0%	100%	0.00
	Feb	35.89	0.00	0.00	35.885		0%	100%	0.00
	Mar	39.85	0.00	0.00	39.852		0%	100%	0.00
	Apr	48.16	0.00	0.00	48.161		0%	100%	0.00
	May	48.79	0.00	0.00	48.792		0%	100%	0.00
	Jun	48.79	0.00	0.00	48.789		0%	100%	0.00
	Jul	43.48	0.00	0.00	43.478		0%	100%	0.00
	Aug	41.51	0.00	0.00	41.509		0%	100%	0.00
	Sep	41.09	0.00	0.00	41.087		0%	100%	0.00
	Oct	41.22	0.00	0.00	41.218		0%	100%	0.00
	Nov	40.69	0.00	0.00	40.693		0%	100%	0.00
	Dec	37.56	0.00	0.00	37.562		0%	100%	0.00
2026	Jan	40.58	0.00	0.00	40.579		0%	100%	0.00
	Feb	37.21	0.00	0.00	37.206		0%	100%	0.00
	Mar	41.43	0.00	0.00	41.434		0%	100%	0.00
	Apr	50.34	0.00	0.00	50.338		0%	100%	0.00
	May	51.05	0.00	0.00	51.046		0%	100%	0.00
	Jun	51.07	0.00	0.00	51.072		0%	100%	0.00
	Jul	45.15	0.00	0.00	45.147		0%	100%	0.00
	Aug	43.10	0.00	0.00	43.103		0%	100%	0.00
	Sep	42.60	0.00	0.00	42.595		0%	100%	0.00
	Oct	42.61	0.00	0.00	42.612		0%	100%	0.00
	Nov	42.15	0.00	0.00	42.150		0%	100%	0.00
	Dec	38.69	0.00	0.00	38.692		0%	100%	0.00
2027	Jan	42.35	0.00	0.00	42.349		0%	100%	0.00
	Feb	38.58	0.00	0.00	38.575		0%	100%	0.00
	Mar	43.08	0.00	0.00	43.079		0%	100%	0.00
	Apr	52.61	0.00	0.00	52.613		0%	100%	0.00
	May	53.40	0.00	0.00	53.404		0%	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	53.46	0.00	0.00	53.463		0%	100%	0.00
	Jul	46.88	0.00	0.00	46.881		0%	100%	0.00
	Aug	44.76	0.00	0.00	44.759		0%	100%	0.00
	Sep	44.16	0.00	0.00	44.158		0%	100%	0.00
	Oct	44.05	0.00	0.00	44.052		0%	100%	0.00
	Nov	43.66	0.00	0.00	43.659		0%	100%	0.00
	Dec	39.86	0.00	0.00	39.857		0%	100%	0.00
2028	Jan	44.19	0.00	0.00	44.195		0%	100%	0.00
	Feb	39.99	0.00	0.00	39.995		0%	100%	0.00
	Mar	44.79	0.00	0.00	44.789		0%	100%	0.00
	Apr	54.99	0.00	0.00	54.991		0%	100%	0.00
	May	55.87	0.00	0.00	55.872		0%	100%	0.00
	Jun	55.96	0.00	0.00	55.965		0%	100%	0.00
	Jul	48.68	0.00	0.00	48.681		0%	100%	0.00
	Aug	46.48	0.00	0.00	46.477		0%	100%	0.00
	Sep	45.78	0.00	0.00	45.779		0%	100%	0.00
	Oct	45.54	0.00	0.00	45.541		0%	100%	0.00
	Nov	45.22	0.00	0.00	45.222		0%	100%	0.00
	Dec	41.06	0.00	0.00	41.057		0%	100%	0.00
2029	Jan	46.12	0.00	0.00	46.122		0%	100%	0.00
	Feb	41.47	0.00	0.00	41.467		0%	100%	0.00
	Mar	46.57	0.00	0.00	46.567		0%	100%	0.00
	Apr	57.48	0.00	0.00	57.477		0%	100%	0.00
	May	58.45	0.00	0.00	58.453		0%	100%	0.00
	Jun	58.58	0.00	0.00	58.584		0%	100%	0.00
	Jul	50.55	0.00	0.00	50.551		0%	100%	0.00
	Aug	48.26	0.00	0.00	48.262		0%	100%	0.00
	Sep	47.46	0.00	0.00	47.459		0%	100%	0.00
	Oct	47.08	0.00	0.00	47.080		0%	100%	0.00
	Nov	46.84	0.00	0.00	46.841		0%	100%	0.00
	Dec	42.29	0.00	0.00	42.292		0%	100%	0.00
2030	Jan	48.13	0.00	0.00	48.133		0%	100%	0.00
	Feb	42.99	0.00	0.00	42.992		0%	100%	0.00
	Mar	48.42	0.00	0.00	48.416		0%	100%	0.00
	Apr	60.07	0.00	0.00	60.075		0%	100%	0.00
	May	61.15	0.00	0.00	61.154		0%	100%	0.00
	Jun	61.33	0.00	0.00	61.325		0%	100%	0.00
	Jul	52.49	0.00	0.00	52.492		0%	100%	0.00
	Aug	50.12	0.00	0.00	50.115		0%	100%	0.00
	Sep	49.20	0.00	0.00	49.201		0%	100%	0.00
	Oct	48.67	0.00	0.00	48.671		0%	100%	0.00
	Nov	48.52	0.00	0.00	48.518		0%	100%	0.00
	Dec	43.57	0.00	0.00	43.565		0%	100%	0.00

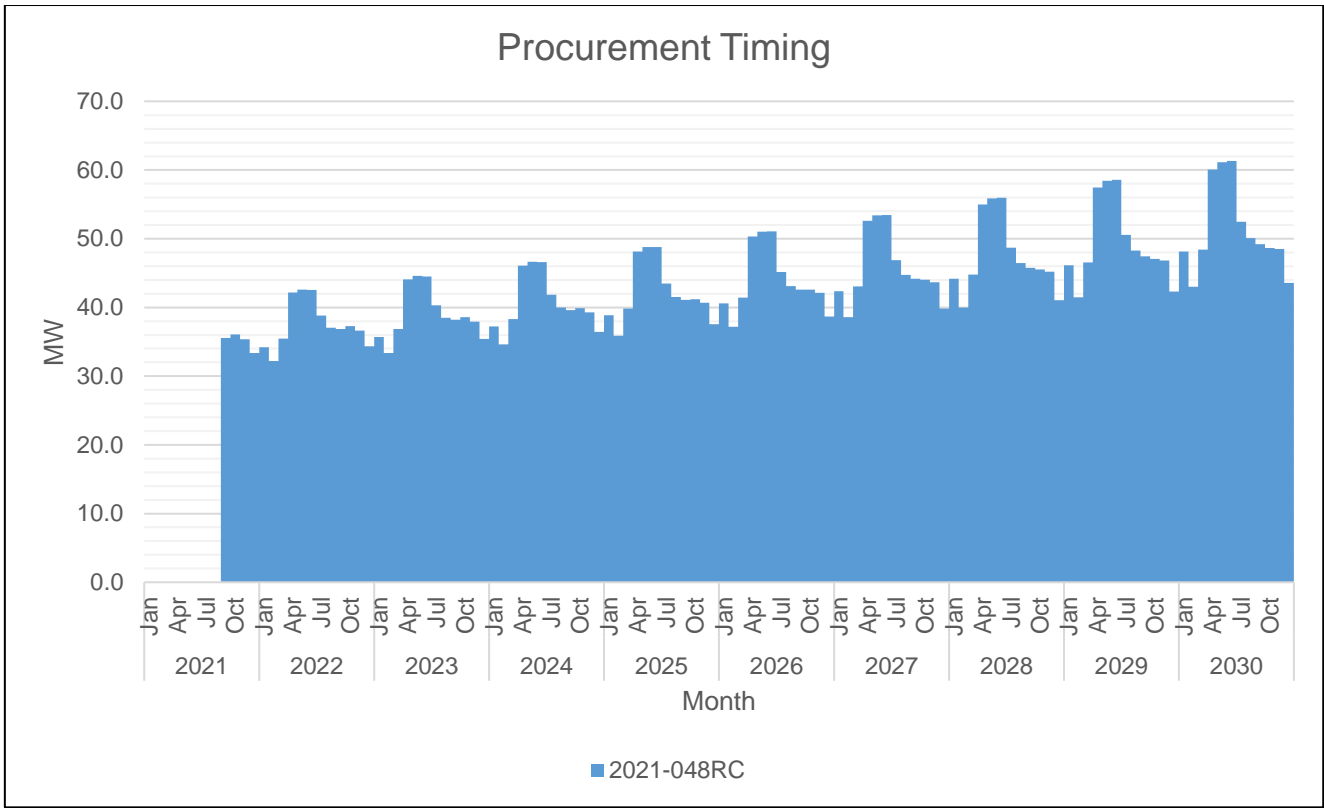
The Peak Demand was forecasted using historical data and was assumed to occur on the month of May due to warm weather. Monthly Peak Demand is at its lowest on the month of February due to cool weather. In general, Peak Demand is expected to grow at a rate of 3.03% annually.



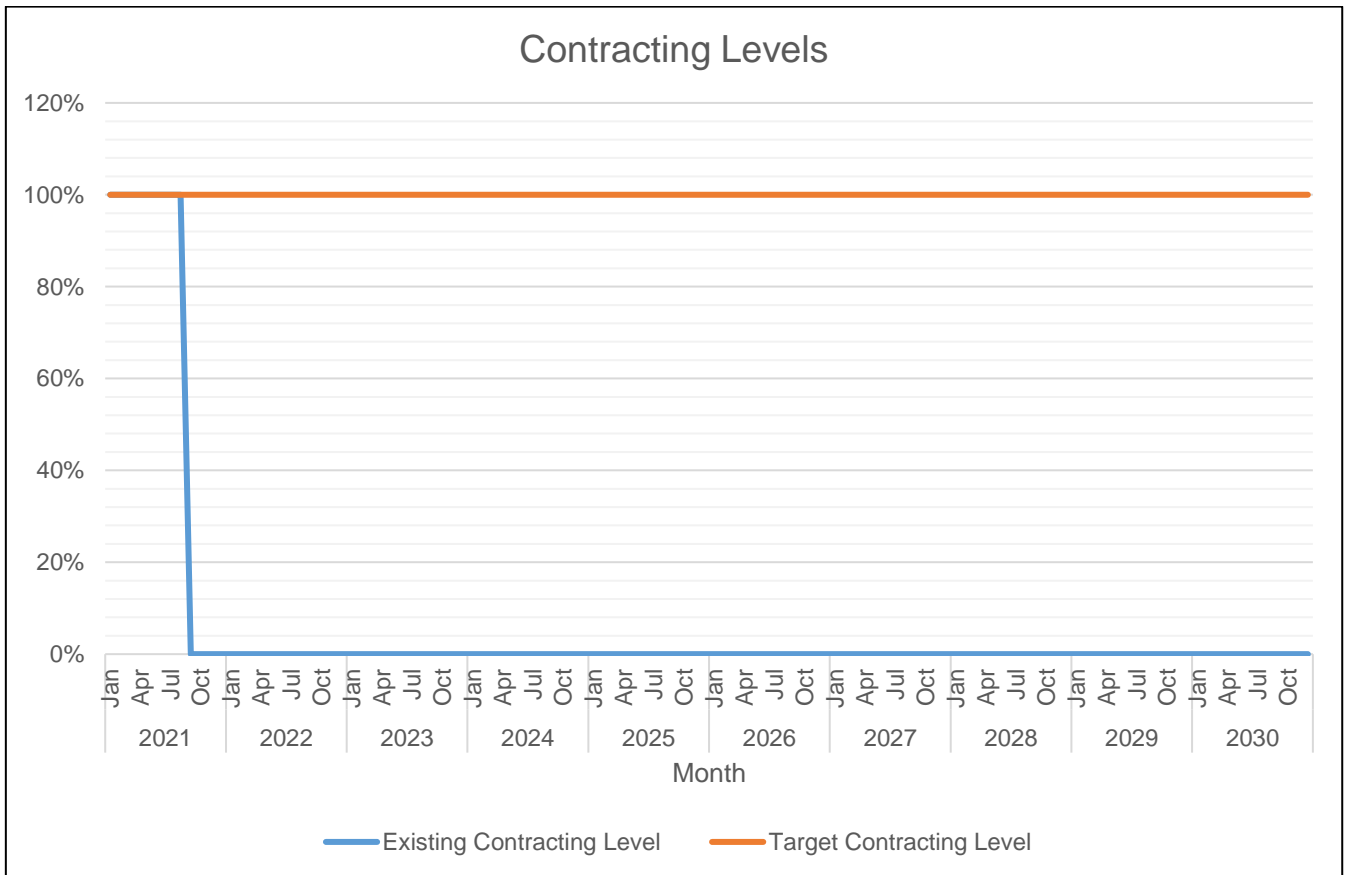
The available supply is generally equal the Peak Demand. This is because the PSA is load following.



There is only one Supplier supplying 100% requirement.



The first wave of supply procurement will be for 43 MW planned to be available by the month of August 2021.



Currently, there is no under-contracting or over-contracting since PSA is load-following.

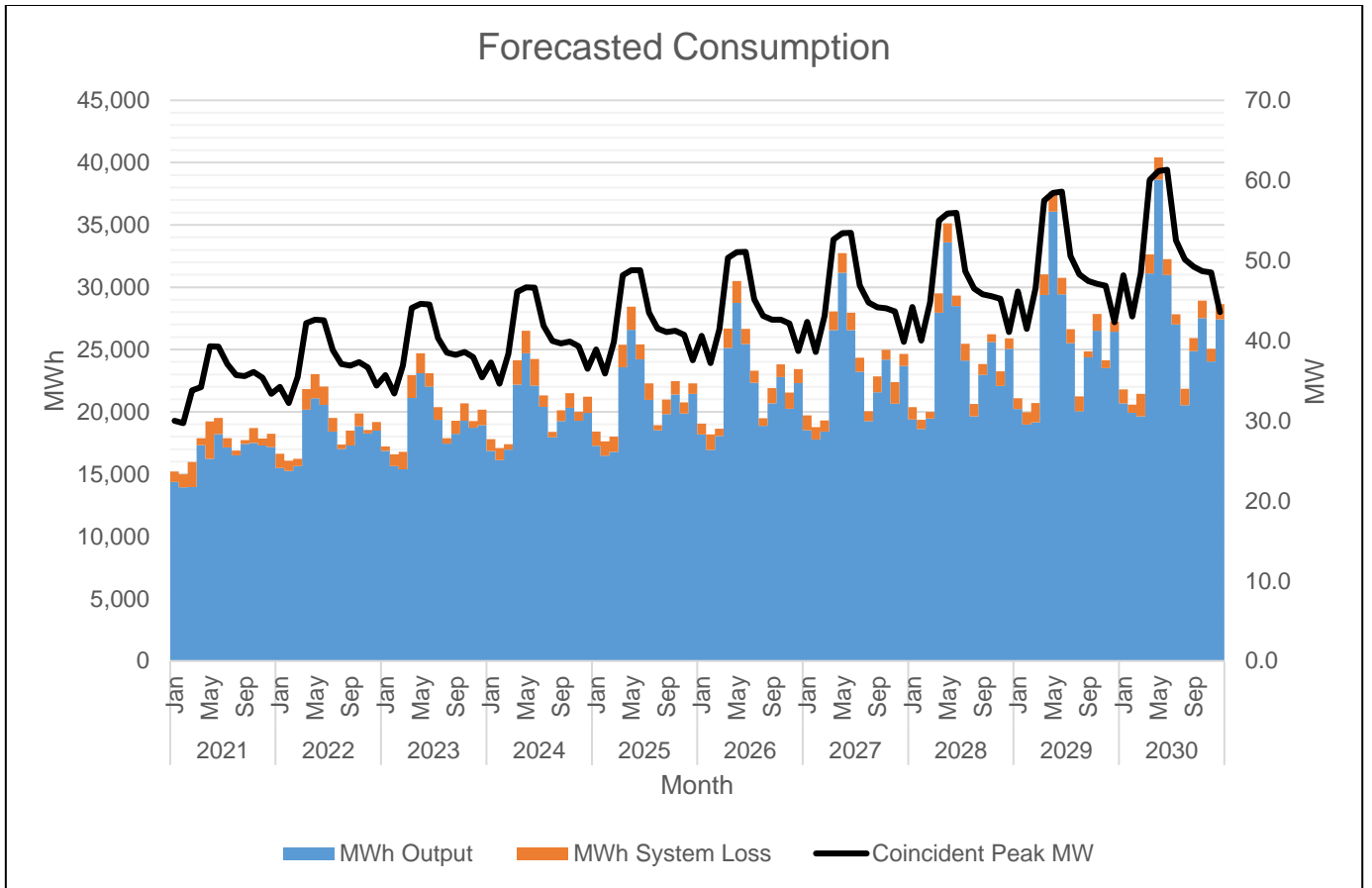
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	15,198	14,363	835	0.00%	5.49%
	Feb	14,984	13,927	1,056	0.00%	7.05%
	Mar	15,975	13,975	2,001	0.00%	12.52%
	Apr	17,869	17,330	540	0.00%	3.02%
	May	19,223	16,224	2,999	0.00%	15.60%
	Jun	19,509	18,199	1,310	0.00%	6.72%
	Jul	17,892	17,146	746	0.00%	4.17%
	Aug	16,885	16,507	378	0.00%	2.24%
	Sep	17,724	17,412	312	0.00%	1.76%
	Oct	18,705	17,488	1,217	0.00%	6.50%
	Nov	17,843	17,284	560	0.00%	3.14%
	Dec	18,247	17,179	1,068	0.00%	5.85%
2022	Jan	16,640	15,487	1,153	0.00%	6.93%
	Feb	16,076	15,265	811	0.00%	5.04%
	Mar	16,214	15,648	566	0.00%	3.49%
	Apr	21,814	20,158	1,656	0.00%	7.59%
	May	23,021	21,093	1,928	0.00%	8.38%
	Jun	22,032	20,546	1,487	0.00%	6.75%
	Jul	19,498	18,424	1,074	0.00%	5.51%
	Aug	17,376	17,018	358	0.00%	2.06%
	Sep	18,489	17,299	1,190	0.00%	6.44%
	Oct	19,868	18,838	1,030	0.00%	5.18%
	Nov	18,529	18,261	268	0.00%	1.45%
	Dec	19,183	18,502	681	0.00%	3.55%
2023	Jan	17,211	16,874	338	0.00%	1.96%
	Feb	16,580	15,646	934	0.00%	5.63%
	Mar	16,791	15,387	1,403	0.00%	8.36%
	Apr	22,941	21,112	1,829	0.00%	7.97%
	May	24,700	23,083	1,617	0.00%	6.55%
	Jun	23,107	22,022	1,085	0.00%	4.69%
	Jul	20,384	19,360	1,025	0.00%	5.03%
	Aug	17,881	17,443	438	0.00%	2.45%
	Sep	19,288	18,231	1,056	0.00%	5.48%
	Oct	20,667	19,284	1,383	0.00%	6.69%
	Nov	19,242	18,718	524	0.00%	2.72%
	Dec	20,168	18,915	1,253	0.00%	6.21%
2024	Jan	17,803	16,850	953	0.00%	5.35%
	Feb	17,101	16,116	985	0.00%	5.76%
	Mar	17,387	16,973	414	0.00%	2.38%
	Apr	24,126	22,170	1,956	0.00%	8.11%
	May	26,500	24,685	1,815	0.00%	6.85%
	Jun	24,233	22,108	2,125	0.00%	8.77%
	Jul	21,312	20,395	916	0.00%	4.30%
	Aug	18,400	17,966	434	0.00%	2.36%
	Sep	20,120	19,263	857	0.00%	4.26%
	Oct	21,501	20,332	1,169	0.00%	5.44%
	Nov	19,981	19,279	702	0.00%	3.51%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Dec	21,203	19,922	1,281	0.00%	6.04%
2025	Jan	18,414	17,264	1,151	0.00%	6.25%
	Feb	17,638	16,494	1,144	0.00%	6.49%
	Mar	18,005	16,782	1,224	0.00%	6.80%
	Apr	25,373	23,567	1,806	0.00%	7.12%
	May	28,432	26,590	1,842	0.00%	6.48%
	Jun	25,415	24,211	1,204	0.00%	4.74%
	Jul	22,281	20,947	1,334	0.00%	5.99%
	Aug	18,935	18,505	430	0.00%	2.27%
	Sep	20,989	19,811	1,178	0.00%	5.61%
	Oct	22,469	21,397	1,071	0.00%	4.77%
	Nov	20,749	19,857	892	0.00%	4.30%
	Dec	22,292	21,445	847	0.00%	3.80%
2026	Jan	19,047	18,177	869	0.00%	4.56%
	Feb	18,191	16,931	1,260	0.00%	6.93%
	Mar	18,646	18,058	588	0.00%	3.15%
	Apr	26,684	25,140	1,544	0.00%	5.79%
	May	30,505	28,732	1,773	0.00%	5.81%
	Jun	26,654	25,425	1,229	0.00%	4.61%
	Jul	23,294	22,326	968	0.00%	4.16%
	Aug	19,485	18,875	610	0.00%	3.13%
	Sep	21,895	20,687	1,207	0.00%	5.51%
	Oct	23,799	22,785	1,014	0.00%	4.26%
	Nov	21,547	20,255	1,292	0.00%	6.00%
	Dec	23,436	22,304	1,132	0.00%	4.83%
2027	Jan	19,701	18,521	1,180	0.00%	5.99%
	Feb	18,763	17,770	993	0.00%	5.29%
	Mar	19,308	18,419	890	0.00%	4.61%
	Apr	28,063	26,543	1,520	0.00%	5.42%
	May	32,730	31,167	1,563	0.00%	4.78%
	Jun	27,953	26,548	1,406	0.00%	5.03%
	Jul	24,354	23,213	1,141	0.00%	4.68%
	Aug	20,051	19,253	798	0.00%	3.98%
	Sep	22,840	21,571	1,269	0.00%	5.56%
	Oct	24,982	24,181	801	0.00%	3.21%
	Nov	22,375	20,660	1,715	0.00%	7.67%
	Dec	24,639	23,670	969	0.00%	3.93%
2028	Jan	20,378	19,371	1,007	0.00%	4.94%
	Feb	19,352	18,615	736	0.00%	3.81%
	Mar	19,995	19,458	537	0.00%	2.68%
	Apr	29,513	27,954	1,559	0.00%	5.28%
	May	35,117	33,610	1,507	0.00%	4.29%
	Jun	29,316	28,479	838	0.00%	2.86%
	Jul	25,461	24,107	1,354	0.00%	5.32%
	Aug	20,634	19,638	996	0.00%	4.83%
	Sep	23,826	22,963	864	0.00%	3.62%
	Oct	26,231	25,585	646	0.00%	2.46%

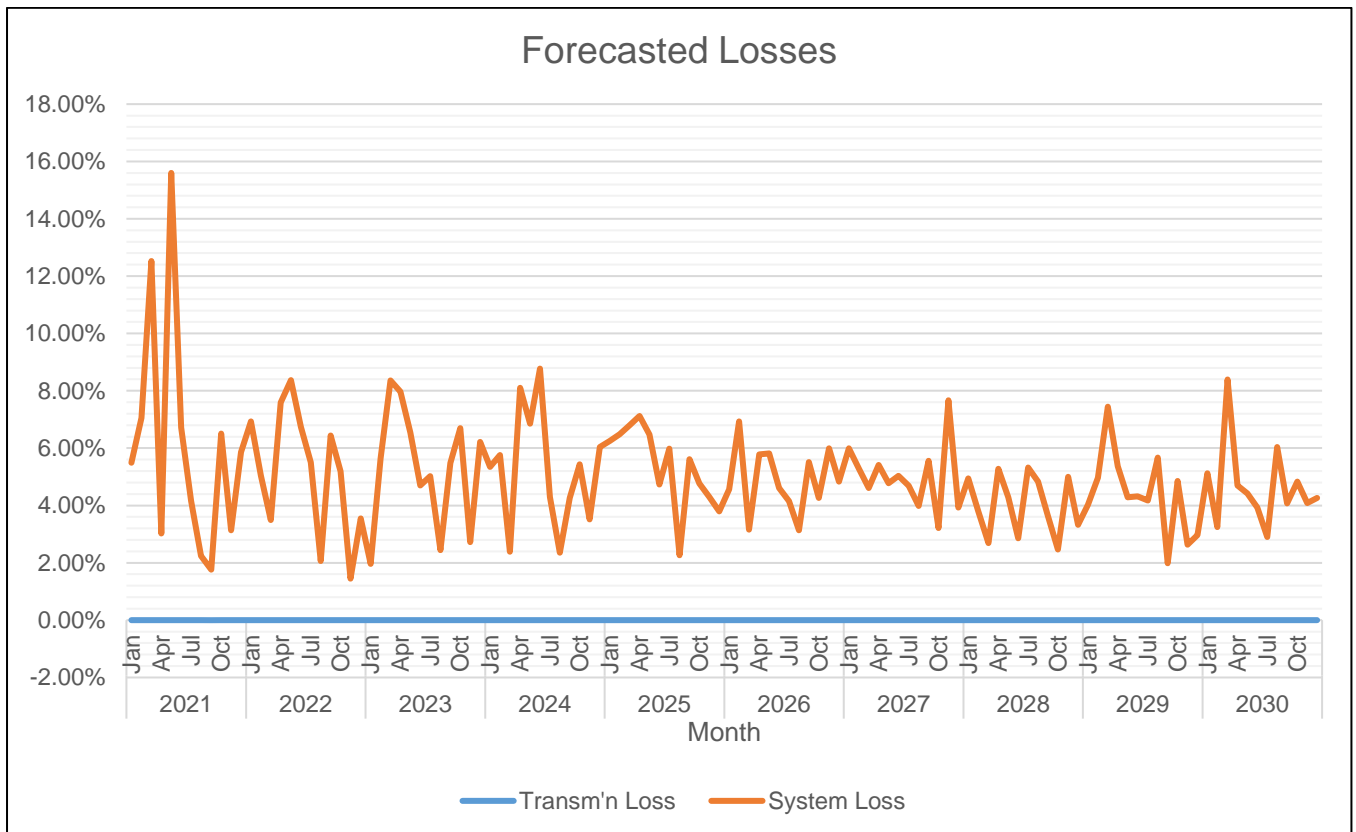
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Nov	23,235	22,073	1,162	0.00%	5.00%
	Dec	25,903	25,043	860	0.00%	3.32%
2029	Jan	21,078	20,229	849	0.00%	4.03%
	Feb	19,959	18,967	992	0.00%	4.97%
	Mar	20,705	19,163	1,542	0.00%	7.45%
	Apr	31,038	29,373	1,665	0.00%	5.37%
	May	37,678	36,062	1,615	0.00%	4.29%
	Jun	30,746	29,418	1,327	0.00%	4.32%
	Jul	26,619	25,509	1,110	0.00%	4.17%
	Aug	21,233	20,031	1,203	0.00%	5.66%
	Sep	24,855	24,362	493	0.00%	1.98%
	Oct	27,849	26,496	1,353	0.00%	4.86%
	Nov	24,128	23,494	634	0.00%	2.63%
	Dec	27,233	26,424	809	0.00%	2.97%
2030	Jan	21,802	20,684	1,118	0.00%	5.13%
	Feb	20,586	19,917	669	0.00%	3.25%
	Mar	21,441	19,642	1,799	0.00%	8.39%
	Apr	32,642	31,107	1,535	0.00%	4.70%
	May	40,425	38,639	1,787	0.00%	4.42%
	Jun	32,245	30,979	1,266	0.00%	3.93%
	Jul	27,830	27,022	808	0.00%	2.90%
	Aug	21,850	20,531	1,319	0.00%	6.04%
	Sep	25,928	24,871	1,057	0.00%	4.08%
	Oct	28,918	27,521	1,397	0.00%	4.83%
	Nov	25,056	24,032	1,024	0.00%	4.09%
	Dec	28,631	27,410	1,221	0.00%	4.27%

MWh Offtake was forecasted using historical data. The assumed load factor is 68.58%.

System Loss was calculated through a Load Flow Study conducted monthly by using Synergi 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 5.97% annually.



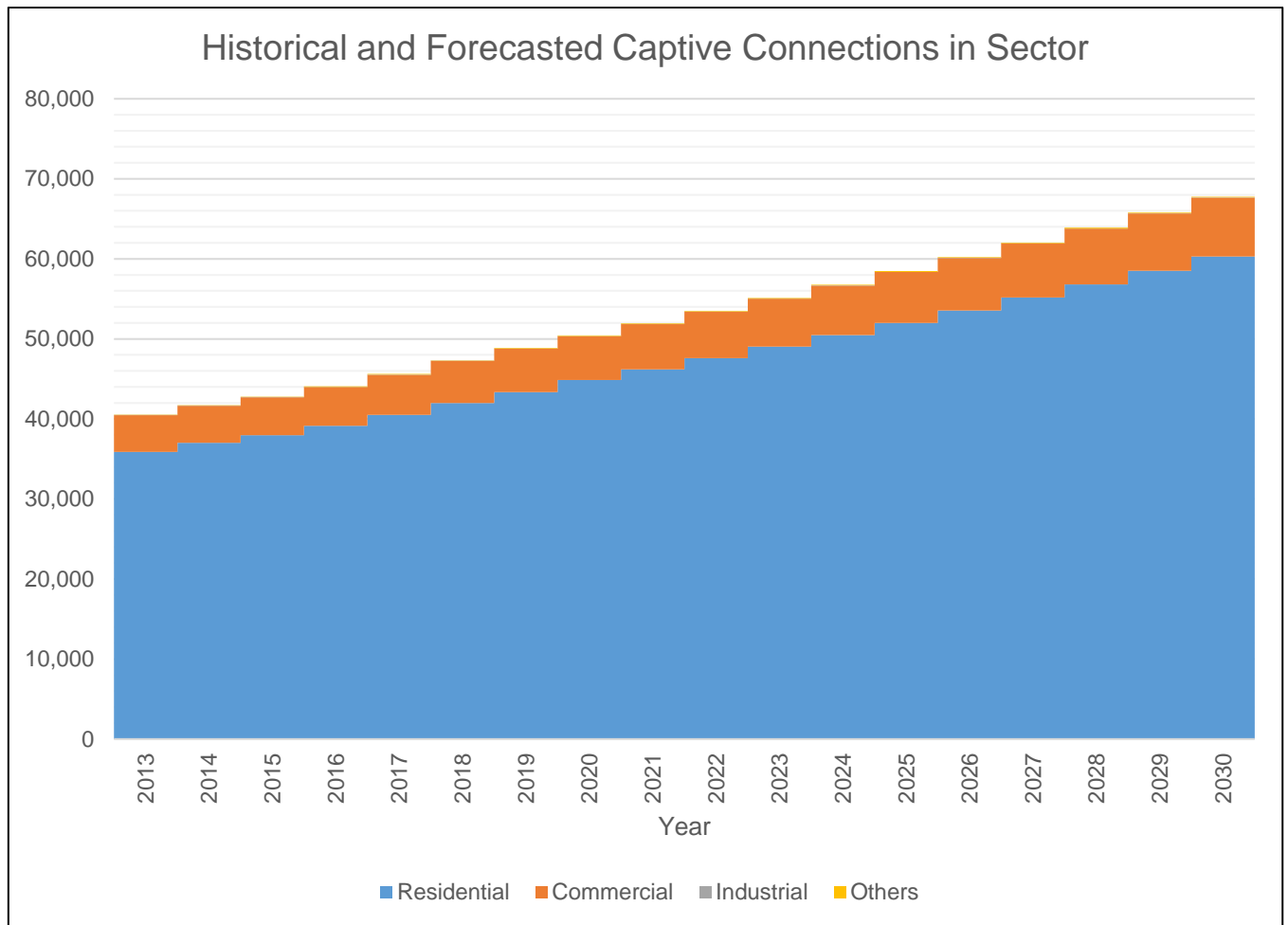
System Loss is expected to range from 1.45% to 8.77%.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2021-048RC	Base	Masinloc Power Partners Company, Ltd.	32.20	72,469	08/26/2021	02/25/2021

The PSA with Masinloc Power Partners Company Limited (MPPCL) filed with ERC under Case No. 2021-048RC was procured through CSP. It was selected to provide for base, intermediate and peaking requirements. Historically, the utilization of the PSA is 100% since it is load-following and there is only one Supplier. All Outages of the plant are covered with 100% backup at same rate. The actual billed overall monthly charge under the PSA averaged 4.2178 P/kWh in 2020.

Captive Customer Connections



The number of Residential connections is expected to grow at a rate of 3% annually. Said customer class is expected to account for 52% of the total consumption.