

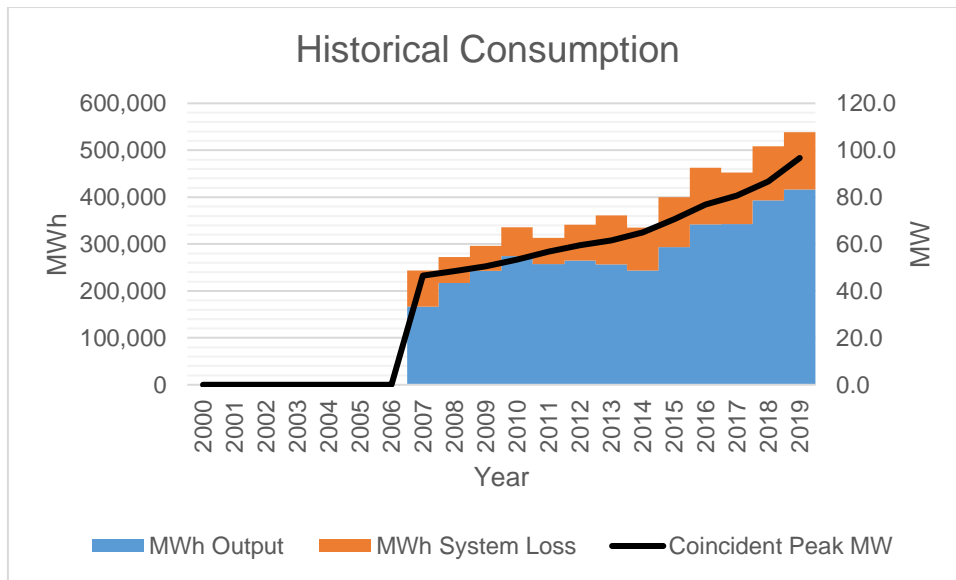
Power Supply Procurement Plan [2020]

**Albay Power and Energy Corp
Concessionaire of
Albay Electric Cooperative Inc.**

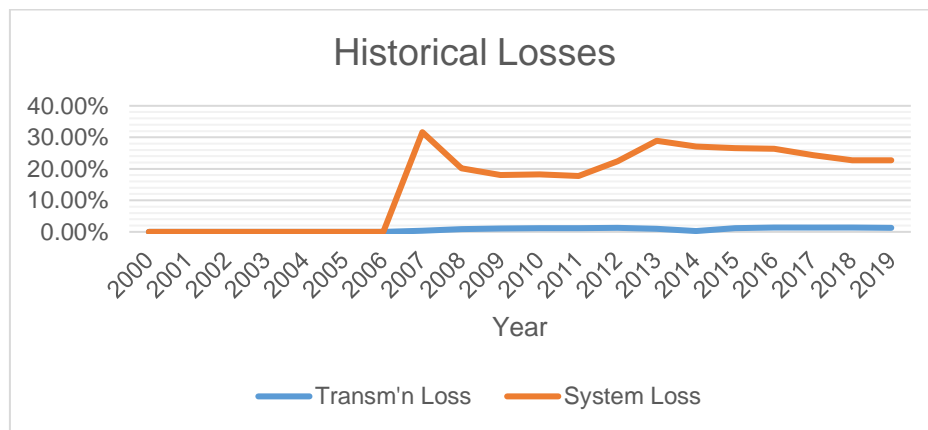
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2007	46.53	244,139.70	19,059.64	243,356.85	166,367.45	76,989.40	60%	0.00%	0.32%	31.64%
2008	48.43	274,558.85	11,953.53	272,137.18	217,190.12	54,947.06	64%	0.00%	0.88%	20.19%
2009	50.43	299,116.20	186,288.20	295,938.05	242,659.21	53,278.85	67%	0.00%	1.06%	18.00%
2010	53.3	339,551.63	256,395.12	335,522.23	274,315.96	61,206.27	72%	0.00%	1.19%	18.24%
2011	56.75	316,943.76	164,557.65	313,141.03	257,525.41	55,615.62	63%	0.00%	1.20%	17.76%
2012	59.55	345,667.22	136,215.25	341,368.78	264,710.80	76,657.98	65%	0.00%	1.24%	22.46%
2013	61.55	364,634.93	128,000.75	360,972.12	256,745.82	104,226.30	67%	0.00%	1.00%	28.87%
2014	65	338,707.56	99,426.32	337,679.93	243,617.21	91,305.61	59%	-0.82%	0.30%	27.04%
2015	70.5	404,293.50	98,117.49	399,589.15	293,216.00	106,373.15	65%	0.00%	1.16%	26.62%
2016	76.82	464,477.81	132,253.94	458,227.93	341,742.77	120,844.37	68%	0.95%	1.35%	26.37%
2017	80.72	458,299.89	140,198.60	452,000.73	342,927.91	109,825.62	64%	0.17%	1.37%	24.30%
2018	86.7	514,986.92	222,215.59	508,009.74	393,437.02	115,128.85	67%	0.11%	1.35%	22.66%
2019	96.71	543,882.87	199,149.56	536,909.62	416,329.50	122,018.39	63%	0.27%	1.28%	22.73%

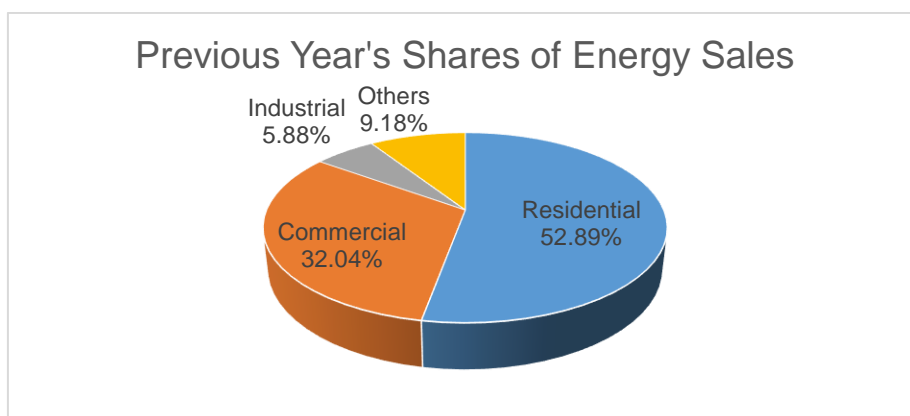
Peak Demand increased from 65 MW in 2014 to 97 MW in 2019. MWh Offtake increased from 338,707.56 MWh in 2014 to 543,882.87 MWh in 2019. Within the same period, Load Factor ranged from 59% to 63%. There was an abrupt change in consumption on 2016 and 2018 due to the entry of new commercial and industrial customers.



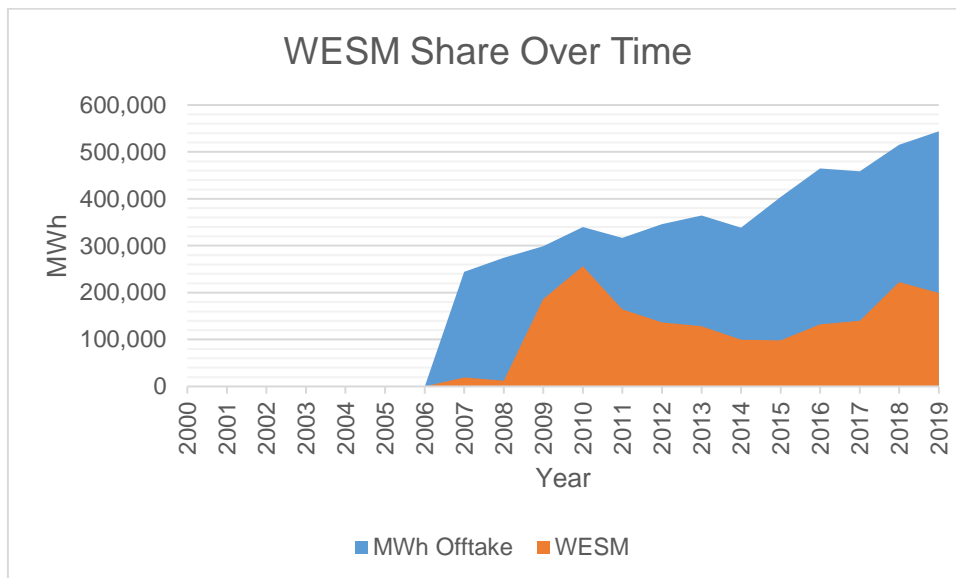
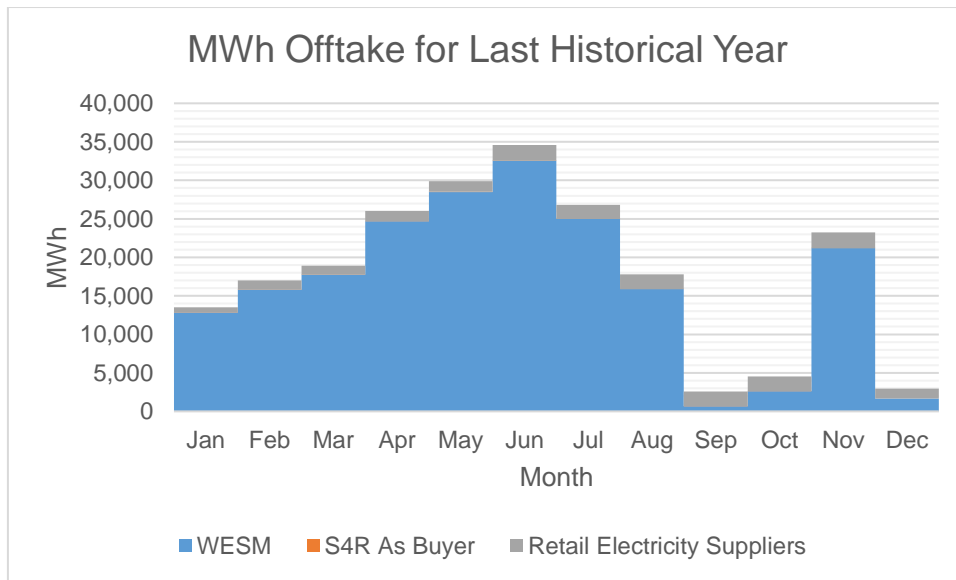
MWh Output increased from year 2014 to year 2019, while MWh System Loss decreased from 27.04% to 22.72% in 2019.



Data on losses are still being gathered and validated. The numbers presented are just estimates.

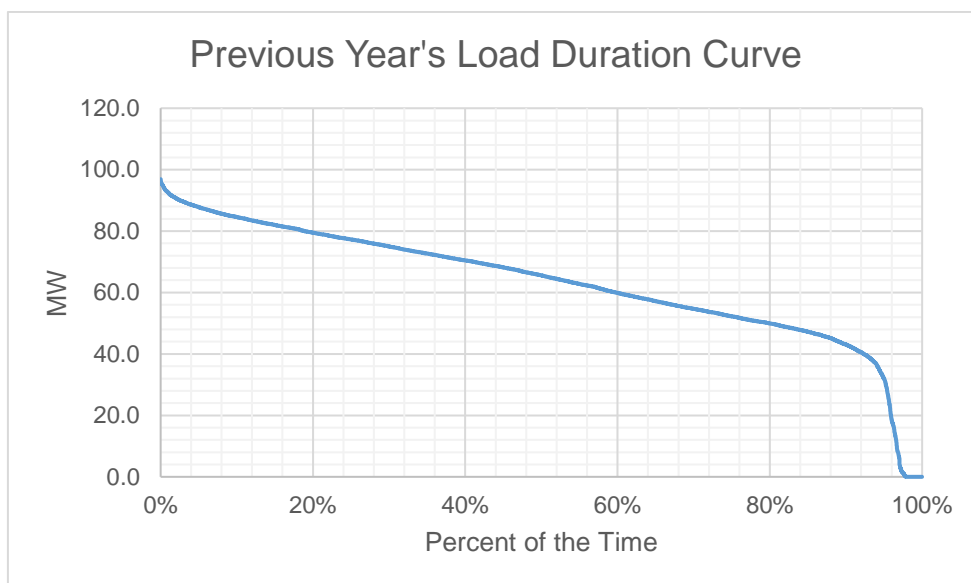


Residential customers account for the bulk of energy sales at 52.89%. In contrast, industrial customers accounted for only 5.88% of energy sales.

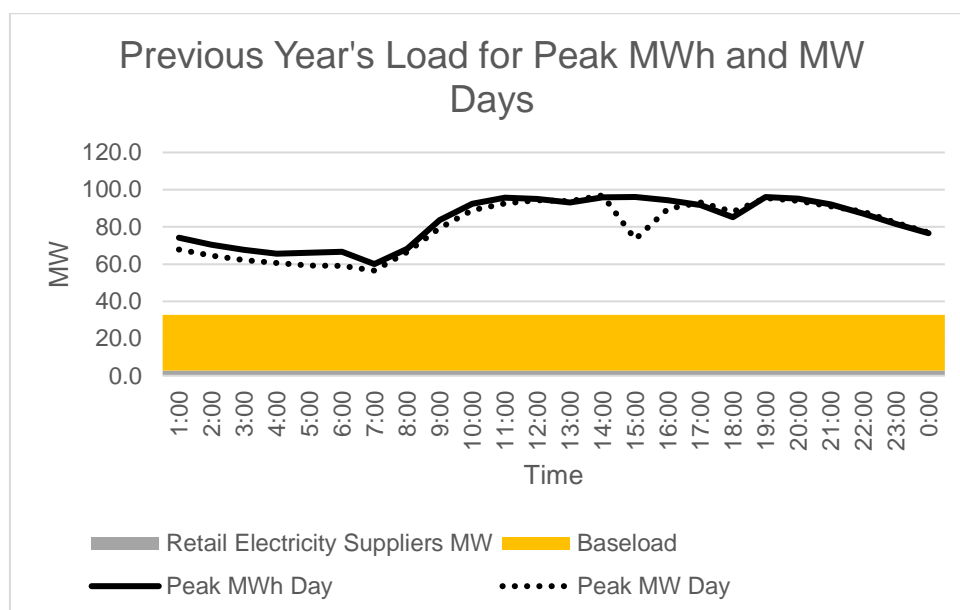


Since APEC's assumptions of operations in 2014, at least half of its energy requirements are being sourced from the market. WESM purchases averages 40% of its monthly purchases.

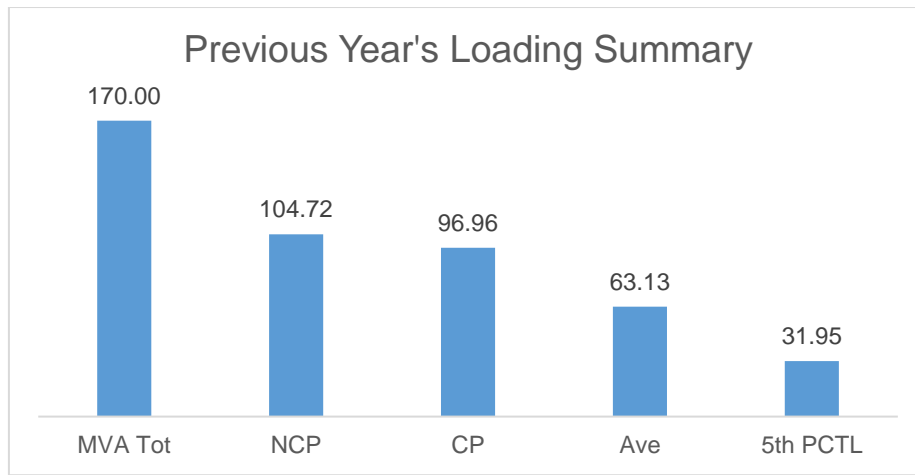
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 0 MW and the maximum load is almost 97 MW for the last historical year.



Peak MW occurred on 1400H last May 20, 2019. Peak daily MWh occurred on 1900H. As shown in the Load Curves, the available baseload supply is lower than the Peak Demand.



The Non-coincident Peak Demand is 104.72 MW, which is around 62% of the total substation capacity of 170 MVA at a power factor of around 60%. The load factor or the ratio between the Average Load of 63.13 MW and the Non-coincident Peak Demand is 104.72 MW. A safe estimate of the true minimum load is the fifth percentile load of 31.95 MW which is 31% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
Tabaco	25	15.582
Washington	50	24.885
Ligao 1	10	8.989
Ligao 2	10	8.514
Malinao	5	4.139
Bitano	50	27.581
Polangui	10	10.225
Sta. Misericordia	10	4.806

The substations loaded at above 70% are Malinao, Ligao 1 and 2, and Polangui. The loading problem for Malinao and Ligao 1 and 2 will be solved by adding at least 10 MVA per substation by 2021. The capacity problem in Polangui will be addressed this 2020.

Forecasted Consumption Data

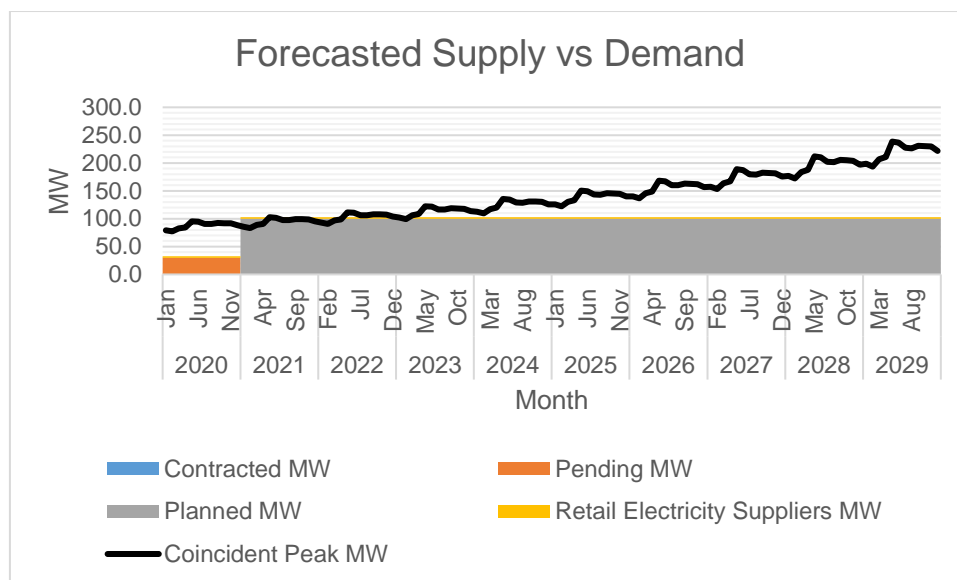
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2020	Jan	93.22	0	30	0	2.75	0%	33%	-60.47
	Feb	91.92	0	30	0	2.75	0%	34%	-59.18
	Mar	96.98	0	30	0	2.94	0%	32%	-64.04
	Apr	98.43	0	30	0	2.75	0%	31%	-65.68
	May	104.77	0	30	0	2.84	0%	29%	-71.93
	Jun	105.28	0	30	0	2.75	0%	29%	-72.53
	Jul	102.87	0	30	0	2.84	0%	30%	-70.03
	Aug	103.7	0	30	0	2.75	0%	30%	-70.95
	Sep	107.2	0	30	0	2.75	0%	29%	-74.45
	Oct	109	0	30	0	2.84	0%	28%	-76.16
	Nov	108.18	0	30	0	2.75	0%	28%	-75.43
	Dec	108.1	0	30	0	2.84	0%	28%	-75.27
2021	Jan	104.34	0	0	104.347	2.75	0%	103%	2.76
	Feb	102.89	0	0	102.894	2.75	0%	103%	2.75
	Mar	108.55	0	0	107.738	3.04	0%	102%	2.23
	Apr	110.16	0	0	110.188	2.75	0%	103%	2.77
	May	117.26	0	0	116.745	2.84	0%	102%	2.32
	Jun	117.83	0	0	117.876	2.75	0%	102%	2.79
	Jul	115.14	0	0	114.682	2.84	0%	102%	2.38
	Aug	116.07	0	0	116.106	2.75	0%	102%	2.78
	Sep	119.98	0	0	120.031	2.75	0%	102%	2.79
	Oct	122	0	0	121.34	2.84	0%	102%	2.18
	Nov	121.08	0	0	121.126	2.75	0%	102%	2.8
	Dec	121	0	0	120.367	2.84	0%	102%	2.21

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2022	Jan	115.45	0	0	115.491	2.75	0%	102%	2.78
	Feb	113.85	0	0	113.883	2.75	0%	103%	2.78
	Mar	120.11	0	0	118.21	3.04	0%	101%	1.14
	Apr	121.9	0	0	121.954	2.75	0%	102%	2.8
	May	129.76	0	0	128.866	2.84	0%	102%	1.95
	Jun	130.39	0	0	130.462	2.75	0%	102%	2.82
	Jul	127.41	0	0	126.583	2.84	0%	102%	2.02
	Aug	128.44	0	0	128.502	2.75	0%	102%	2.81
	Sep	132.77	0	0	132.847	2.75	0%	102%	2.82
	Oct	135	0	0	133.95	2.84	0%	101%	1.79
	Nov	133.98	0	0	134.058	2.75	0%	102%	2.83
	Dec	133.89	0	0	132.873	2.84	0%	101%	1.82
2023	Jan	126.57	0	0	126.635	2.75	0%	102%	2.81
	Feb	124.81	0	0	124.872	2.75	0%	102%	2.81
	Mar	131.68	0	0	128.682	3.04	0%	100%	0.04
	Apr	133.64	0	0	133.72	2.75	0%	102%	2.83
	May	142.25	0	0	140.986	2.84	0%	101%	1.57
	Jun	142.95	0	0	143.047	2.75	0%	102%	2.85
	Jul	139.67	0	0	138.484	2.84	0%	101%	1.65
	Aug	140.8	0	0	140.899	2.75	0%	102%	2.84
	Sep	145.56	0	0	145.662	2.75	0%	102%	2.85
	Oct	148	0	0	146.56	2.84	0%	101%	1.4
	Nov	146.88	0	0	146.989	2.75	0%	102%	2.86
	Dec	146.78	0	0	145.38	2.84	0%	101%	1.44

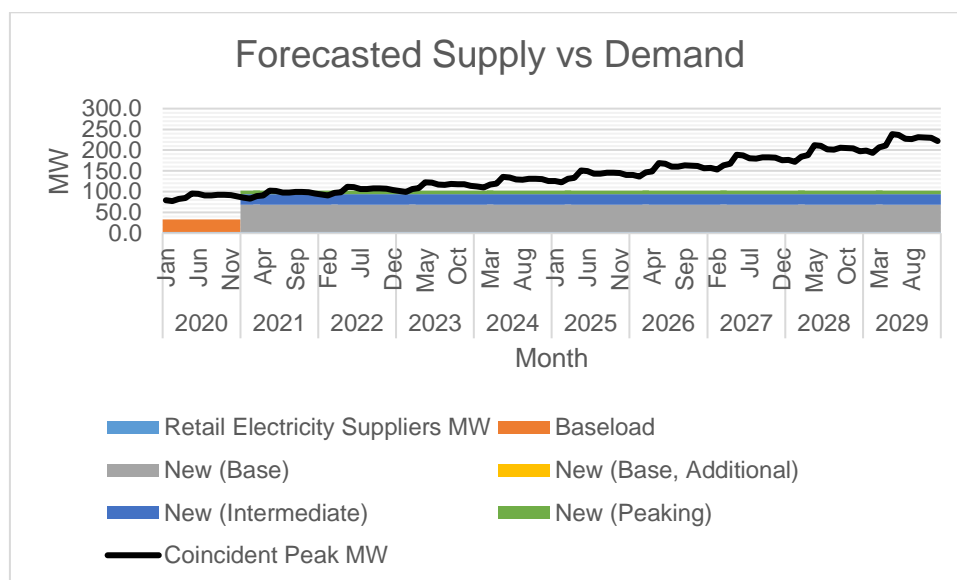
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2024	Jan	138.55	0	0	138.636	2.75	0%	102%	2.84
	Feb	136.62	0	0	136.707	2.75	0%	102%	2.83
	Mar	144.14	0	0	139.959	2.94	0%	99%	-1.24
	Apr	146.28	0	0	146.392	2.75	0%	102%	2.86
	May	155.71	0	0	154.039	2.84	0%	101%	1.17
	Jun	156.47	0	0	156.601	2.75	0%	102%	2.88
	Jul	152.89	0	0	151.3	2.84	0%	101%	1.25
	Aug	154.12	0	0	154.249	2.75	0%	102%	2.87
	Sep	159.32	0	0	159.463	2.75	0%	102%	2.89
	Oct	162	0	0	160.14	2.84	0%	101%	0.98
	Nov	160.77	0	0	160.916	2.75	0%	102%	2.89
	Dec	160.67	0	0	158.848	2.84	0%	101%	1.02
2025	Jan	149.66	0	0	149.78	2.75	0%	102%	2.86
	Feb	147.58	0	0	147.696	2.75	0%	102%	2.86
	Mar	155.7	0	0	150.43	3.04	0%	99%	-2.23
	Apr	158.02	0	0	158.158	2.75	0%	102%	2.88
	May	168.21	0	0	166.159	2.84	0%	100%	0.79
	Jun	169.03	0	0	169.186	2.75	0%	102%	2.91
	Jul	165.15	0	0	163.2	2.84	0%	101%	0.88
	Aug	166.49	0	0	166.646	2.75	0%	102%	2.9
	Sep	172.11	0	0	172.278	2.75	0%	102%	2.92
	Oct	175	0	0	172.75	2.84	0%	100%	0.59
	Nov	173.68	0	0	173.848	2.75	0%	102%	2.92
	Dec	173.56	0	0	171.355	2.84	0%	100%	0.63

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2026	Jan	161.64	0	0	161.781	2.75	0%	102%	2.89
	Feb	159.39	0	0	159.53	2.75	0%	102%	2.89
	Mar	168.16	0	0	161.707	3.04	0%	98%	-3.41
	Apr	170.66	0	0	170.829	2.75	0%	102%	2.91
	May	181.66	0	0	179.212	2.84	0%	100%	0.39
	Jun	182.55	0	0	182.74	2.75	0%	102%	2.94
	Jul	178.37	0	0	176.016	2.84	0%	100%	0.49
	Aug	179.81	0	0	179.997	2.75	0%	102%	2.93
	Sep	185.88	0	0	186.079	2.75	0%	102%	2.95
	Oct	189	0	0	186.33	2.84	0%	100%	0.17
	Nov	187.57	0	0	187.774	2.75	0%	102%	2.95
	Dec	187.45	0	0	184.823	2.84	0%	100%	0.22
2027	Jan	172.75	0	0	172.925	2.75	0%	102%	2.92
	Feb	170.35	0	0	170.519	2.75	0%	102%	2.91
	Mar	179.73	0	0	172.179	3.04	0%	97%	-4.51
	Apr	182.4	0	0	182.595	2.75	0%	102%	2.94
	May	194.16	0	0	191.333	2.84	0%	100%	0.01
	Jun	195.1	0	0	195.325	2.75	0%	102%	2.97
	Jul	190.64	0	0	187.917	2.84	0%	100%	0.12
	Aug	192.18	0	0	192.393	2.75	0%	102%	2.96
	Sep	198.66	0	0	198.894	2.75	0%	102%	2.98
	Oct	202	0	0	198.94	2.84	0%	100%	-0.22
	Nov	200.47	0	0	200.706	2.75	0%	102%	2.98
	Dec	200.34	0	0	197.329	2.84	0%	100%	-0.17

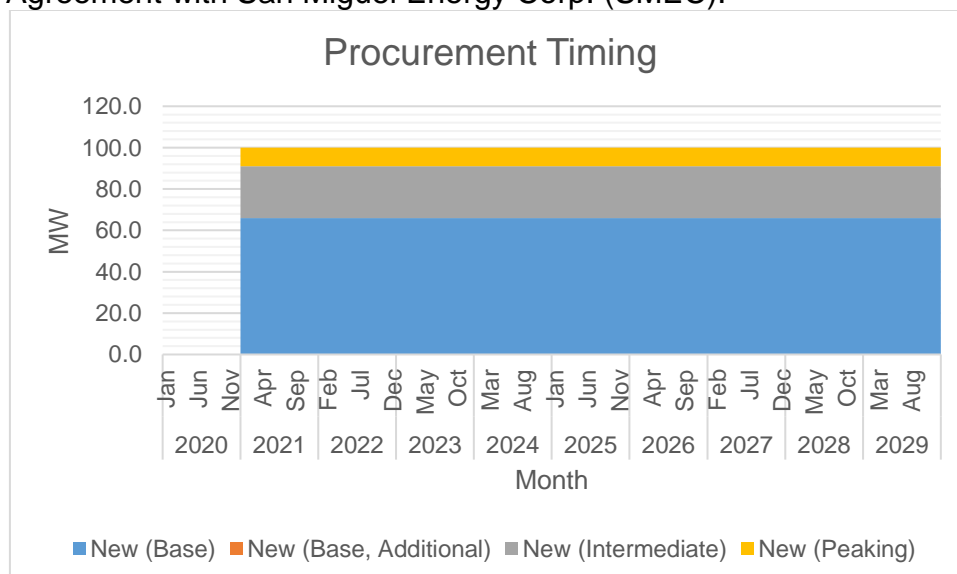
The Peak Demand was forecasted using the Regression Model provided by NEA. In general, Peak Demand is expected to grow at a rate of 9.91% annually for the first five (5) years and 5.71% for the succeeding ten (10) years.



The available supply is generally below the Peak Demand. This is because there is no approved power supply agreement.



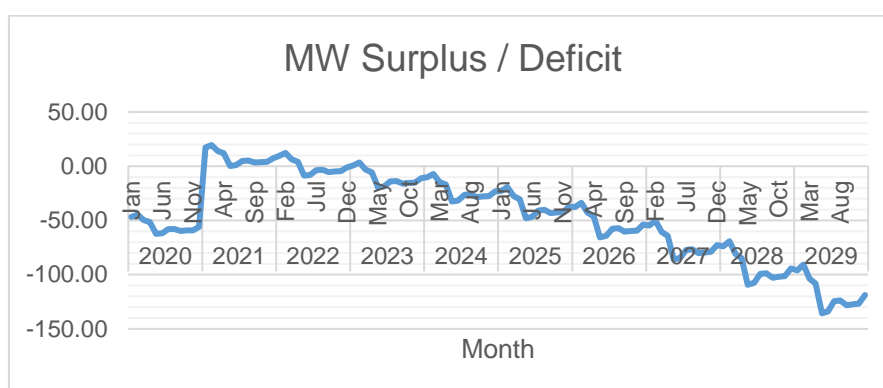
Of the available supply, the largest is from the WESM. This is followed by around 30MW from the Interim Supply Agreement with San Miguel Energy Corp. (SMEC).



The first wave of supply procurement will be for the 100 MW planned to be available not later than December 26, 2020.



Currently, there is under-contracting by 70%. The highest target contracting level is 100% which is expected to occur on by 2021.



		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2020	Jan	48,180	30,772	9,636	16.13%	23.85%
	Feb	48,180	30,867	9,636	15.93%	23.79%
	Mar	45,204	31,696	9,041	9.88%	22.19%
	Apr	48,180	36,513	9,636	4.22%	20.88%
	May	46,692	38,647	9,338	-2.77%	19.46%
	Jun	48,180	41,108	9,636	-5.32%	18.99%
	Jul	46,692	36,228	9,338	2.41%	20.49%
	Aug	48,180	36,943	9,636	3.32%	20.69%
	Sep	48,180	37,106	9,636	2.99%	20.62%
	Oct	46,692	36,704	9,338	1.39%	20.28%
	Nov	48,180	36,343	9,636	4.57%	20.96%
	Dec	46,692	34,526	9,338	6.06%	21.29%

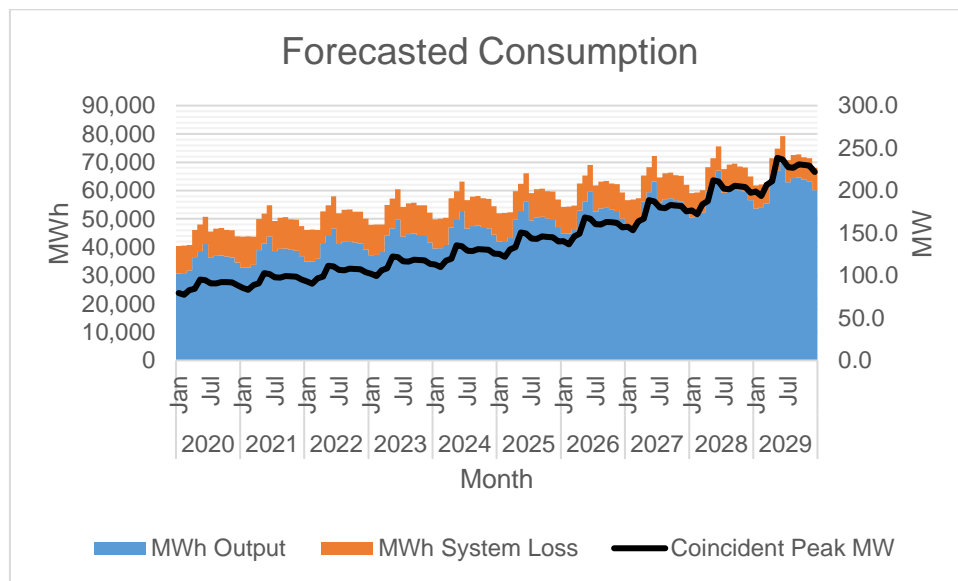
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	64,397	32,801	10,947	32.06%	25.02%
	Feb	64,364	32,897	10,942	31.89%	24.96%
	Mar	58,448	33,784	9,936	25.20%	22.73%
	Apr	64,527	38,941	10,970	22.65%	21.98%
	May	62,665	41,220	10,653	17.22%	20.54%
	Jun	64,698	43,844	10,999	15.23%	20.06%
	Jul	62,619	38,630	10,645	21.31%	21.60%
	Aug	64,659	39,392	10,992	22.08%	21.82%
	Sep	64,746	39,562	11,007	21.90%	21.77%
	Oct	62,767	39,133	10,670	20.65%	21.42%
	Nov	64,770	38,750	11,011	23.17%	22.13%
	Dec	62,745	36,813	10,667	24.33%	22.47%
2022	Jan	65,755	34,928	11,178	29.88%	24.24%
	Feb	65,719	35,029	11,172	29.70%	24.18%
	Mar	59,684	35,975	10,146	22.72%	22.00%
	Apr	65,899	41,475	11,203	20.06%	21.27%
	May	64,009	43,902	10,881	14.41%	19.86%
	Jun	66,088	46,693	11,235	12.35%	19.39%
	Jul	63,958	41,138	10,873	18.68%	20.90%
	Aug	66,044	41,954	11,228	19.48%	21.11%
	Sep	66,141	42,131	11,244	19.30%	21.07%
	Oct	64,122	41,674	10,901	18.01%	20.73%
	Nov	66,168	41,267	11,249	20.63%	21.42%
	Dec	64,098	39,204	10,897	21.84%	21.75%
2023	Jan	67,305	37,167	10,769	28.78%	22.46%
	Feb	67,265	37,279	10,762	28.58%	22.40%
	Mar	61,096	38,286	9,775	21.33%	20.34%
	Apr	67,462	44,126	10,794	18.59%	19.65%
	May	65,540	46,708	10,486	12.73%	18.33%
	Jun	67,670	49,670	10,827	10.60%	17.90%
	Jul	65,484	43,768	10,477	17.16%	19.31%
	Aug	67,622	44,643	10,820	17.98%	19.51%
	Sep	67,728	44,830	10,837	17.81%	19.47%
	Oct	65,664	44,341	10,506	16.47%	19.16%
	Nov	67,758	43,910	10,841	19.20%	19.80%
	Dec	65,637	41,715	10,502	20.45%	20.11%
2024	Jan	69,020	39,532	10,353	27.72%	20.75%
	Feb	68,977	39,662	10,347	27.50%	20.69%
	Mar	64,239	40,732	9,636	21.59%	19.13%
	Apr	69,193	46,911	10,379	17.20%	18.12%
	May	67,231	49,651	10,085	11.15%	16.88%
	Jun	69,420	52,790	10,413	8.96%	16.48%
	Jul	67,170	46,532	10,076	15.73%	17.80%
	Aug	69,368	47,476	10,405	16.56%	17.98%
	Sep	69,484	47,674	10,423	16.39%	17.94%
	Oct	67,367	47,150	10,105	15.01%	17.65%
	Nov	69,516	46,693	10,427	17.83%	18.26%
	Dec	67,339	44,359	10,101	19.13%	18.55%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2025	Jan	70,923	42,036	9,929	26.73%	19.11%
	Feb	70,876	42,191	9,923	26.47%	19.04%
	Mar	64,384	43,327	9,014	18.70%	17.22%
	Apr	71,109	49,841	9,955	15.91%	16.65%
	May	69,103	52,747	9,674	9.67%	15.50%
	Jun	71,355	56,066	9,990	7.43%	15.12%
	Jul	69,037	49,445	9,665	14.38%	16.35%
	Aug	71,298	50,470	9,982	15.21%	16.51%
	Sep	71,424	50,680	9,999	15.04%	16.48%
	Oct	69,250	50,117	9,695	13.63%	16.21%
	Nov	71,459	49,633	10,004	16.54%	16.78%
	Dec	69,218	47,151	9,691	17.88%	17.05%
2026	Jan	73,052	44,692	9,497	25.82%	17.53%
	Feb	73,002	44,881	9,490	25.52%	17.45%
	Mar	66,317	46,087	8,621	17.50%	15.76%
	Apr	73,253	52,933	9,523	14.74%	15.25%
	May	71,195	56,011	9,255	8.33%	14.18%
	Jun	73,518	59,516	9,557	6.05%	13.84%
	Jul	71,124	52,522	9,246	13.15%	14.97%
	Aug	73,457	53,639	9,549	13.98%	15.11%
	Sep	73,593	53,863	9,567	13.81%	15.08%
	Oct	71,354	53,256	9,276	12.36%	14.83%
	Nov	73,630	52,744	9,572	15.37%	15.36%
	Dec	71,320	50,107	9,272	16.74%	15.61%
2027	Jan	75,393	47,515	9,047	24.98%	16.00%
	Feb	75,340	47,749	9,041	24.62%	15.92%
	Mar	68,441	49,028	8,213	16.37%	14.35%
	Apr	75,609	56,202	9,073	13.67%	13.90%
	May	73,492	59,459	8,819	7.09%	12.92%
	Jun	75,892	63,153	9,107	4.79%	12.60%
	Jul	73,416	55,778	8,810	12.02%	13.64%
	Aug	75,827	57,002	9,099	12.83%	13.77%
	Sep	75,972	57,241	9,117	12.65%	13.74%
	Oct	73,661	56,585	8,839	11.18%	13.51%
	Nov	76,012	56,043	9,121	14.27%	14.00%
	Dec	73,625	53,241	8,835	15.69%	14.23%
2028	Jan	77,985	50,520	8,578	24.22%	14.52%
	Feb	77,928	50,809	8,572	23.80%	14.44%
	Mar	72,376	52,165	7,961	16.92%	13.24%
	Apr	78,214	59,663	8,604	12.72%	12.60%
	May	76,030	63,107	8,363	6.00%	11.70%
	Jun	78,516	66,996	8,637	3.67%	11.42%
	Jul	75,949	59,230	8,354	11.01%	12.36%
	Aug	78,447	60,576	8,629	11.78%	12.47%
	Sep	78,601	60,831	8,646	11.61%	12.44%
	Oct	76,210	60,120	8,383	10.11%	12.24%
	Nov	78,644	59,546	8,651	13.28%	12.68%
	Dec	76,172	56,570	8,379	14.73%	12.90%

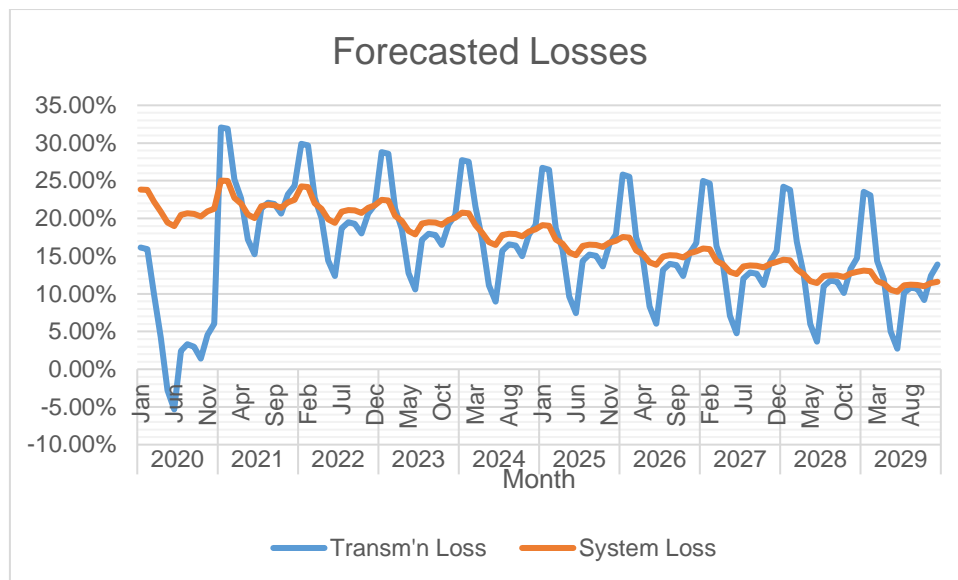
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2029	Jan	80,844	53,721	8,084	23.55%	13.08%
	Feb	80,784	54,077	8,078	23.06%	13.00%
	Mar	73,384	55,516	7,338	14.35%	11.68%
	Apr	81,087	63,331	8,109	11.90%	11.35%
	May	78,826	66,971	7,883	5.04%	10.53%
	Jun	81,407	71,059	8,141	2.71%	10.28%
	Jul	78,741	62,892	7,874	10.13%	11.13%
	Aug	81,334	64,379	8,133	10.85%	11.22%
	Sep	81,497	64,651	8,150	10.67%	11.19%
	Oct	79,018	63,878	7,902	9.16%	11.01%
	Nov	81,543	63,272	8,154	12.41%	11.42%
	Dec	78,977	60,109	7,898	13.89%	11.61%

MWh Offtake was forecasted using the conversion of the demand forecast to energy.

System Loss figures are all initial estimates. Data on losses are still being validated.



MWh Output was expected to grow at a rate similar to the growth in demand, annually.



The ranges for the Transmission Losses and System Losses are still initial estimates. Data on losses are still being validated.

Power Supply

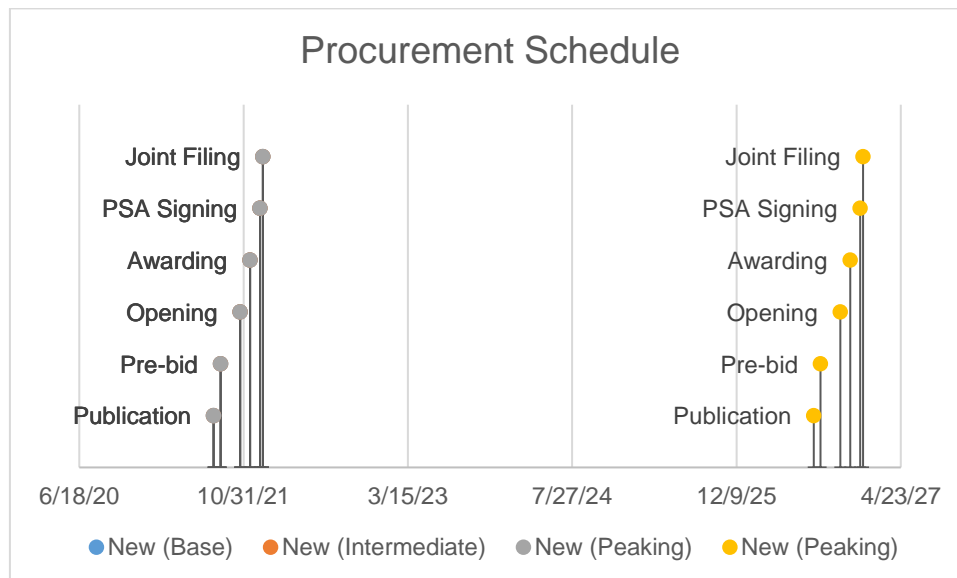
Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
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No existing PSA filed with ERC.

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
Baseload	Base	San Miguel Energy Corporation	30.00	263,520	12/26/2019	12/25/2020
Baseload	Base	San Miguel Energy Corporation	40.00	350,400	12/26/2020	12/25/2021

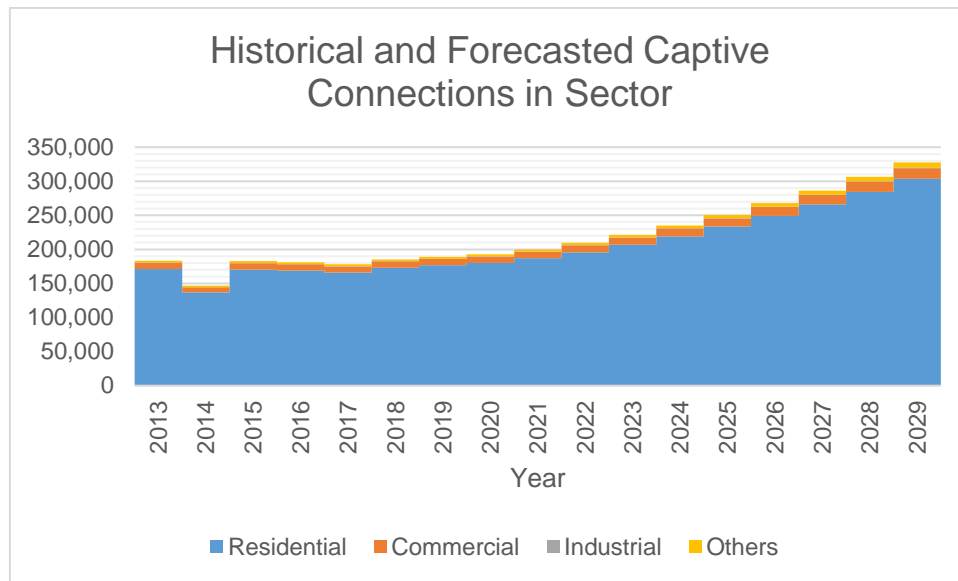
The PSA with SMEC are still being finalized for filing with ERC.

	New (Base)	New (Intermediate)	New (Peaking)	New (Peaking)
Type	Base	Intermediate	Peaking	Peaking
Minimum MW	66.00	25.00	9.00	
Minimum MWh/yr	578,512	174,434	53,135	
PSA Start	12/26/2021	12/26/2021	12/26/2021	12/26/2026
PSA End	12/25/2036	12/25/2036	12/25/2036	12/25/2036
Publication	8/1/2021	8/1/2021	8/1/2021	8/1/2026
Pre-bid	8/22/2021	8/22/2021	8/22/2021	8/22/2026
Opening	10/21/2021	10/21/2021	10/21/2021	10/21/2026
Awarding	11/20/2021	11/20/2021	11/20/2021	11/20/2026
PSA Signing	12/20/2021	12/20/2021	12/20/2021	12/20/2026
Joint Filing	12/29/2021	12/29/2021	12/29/2021	12/29/2026



For the procurement of 100 MW of supply which is planned to be available not later than December 26, 2021, the first publication or launch of CSP will be on August 2021. Joint filing is planned on December 2021, or 150 days later, in accordance with DOE's 2018 CSP Policy.

Captive Customer Connections



The number of captive connections is expected to grow at a rate of 1.02% annually.