

Power Supply Procurement Plan 2020

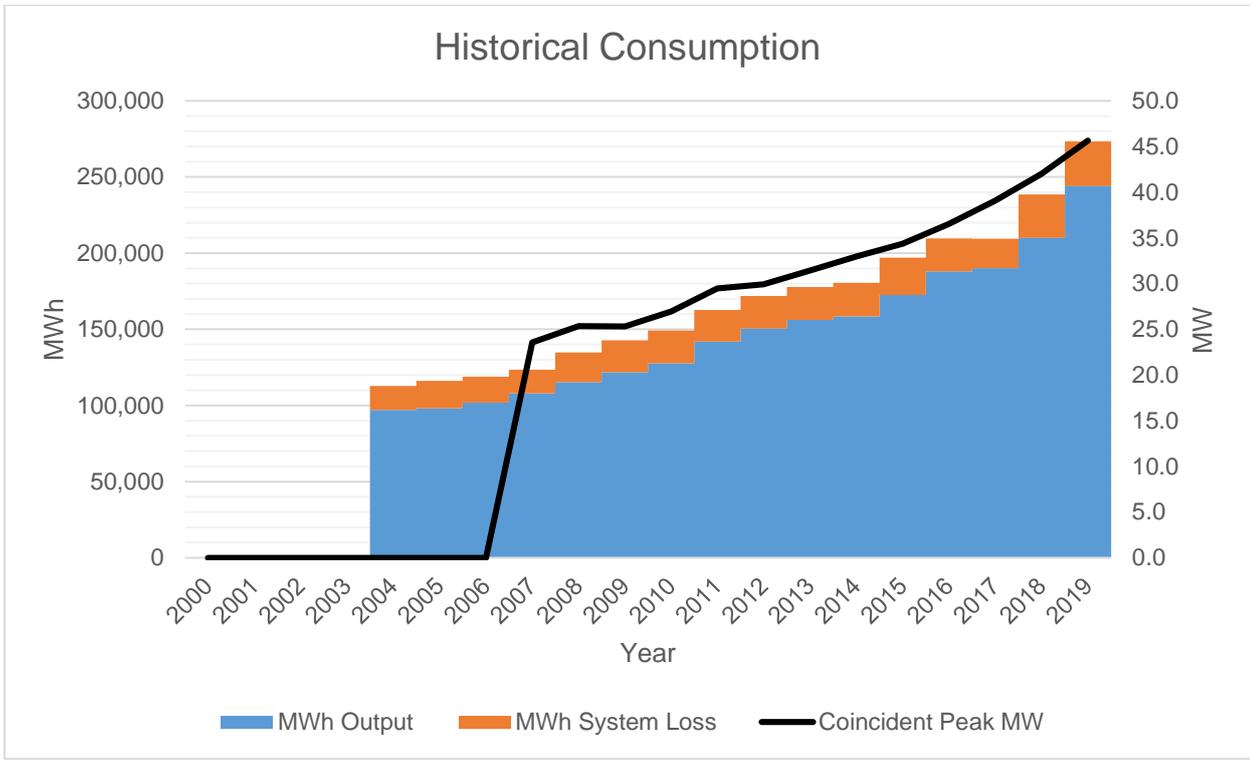
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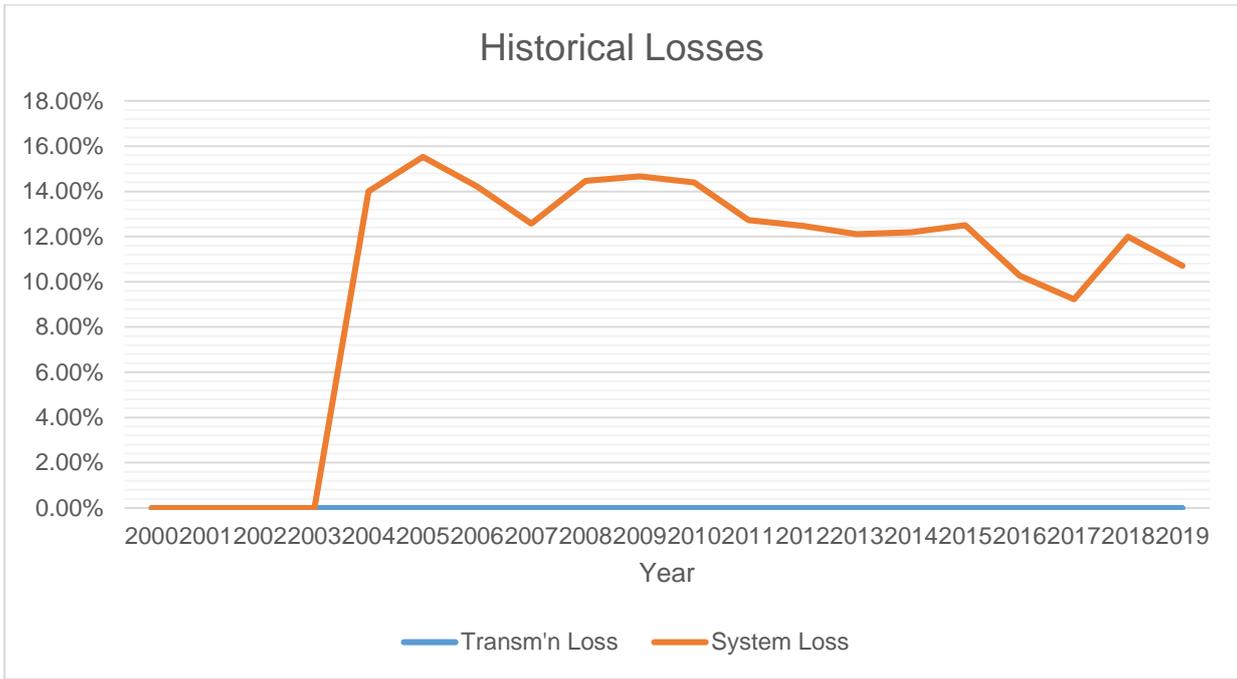
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	0.00	0	0	0	0	0	0.00%	0.00%	0.00%	0.00%
2001	0.00	0	0	0	0	0	0.00%	0.00%	0.00%	0.00%
2002	0.00	0	0	0	0	0	0.00%	0.00%	0.00%	0.00%
2003	0.00	0	0	0	0	0	0.00%	0.00%	0.00%	0.00%
2004	0.00	112,836	0	112,836	97,038	15,798	0.00%	0.00%	0.00%	14.00%
2005	0.00	116,085	0	116,085	98,069	18,017	0.00%	0.00%	0.00%	15.52%
2006	0.00	118,865	0	118,865	101,964	16,902	0.00%	0.00%	0.00%	14.22%
2007	23.56	123,531	0	123,531	108,002	15,530	60%	0.00%	0.00%	12.57%
2008	25.37	134,709	0	134,709	115,229	19,480	61%	0.00%	0.00%	14.46%
2009	25.32	142,739	0	142,739	121,799	20,939	64%	0.00%	0.00%	14.67%
2010	26.95	149,257	0	149,257	127,767	21,490	63%	0.00%	0.00%	14.40%
2011	29.48	162,615	0	162,615	141,919	20,696	63%	0.00%	0.00%	12.73%
2012	29.91	171,982	0	171,982	150,530	21,451	66%	0.00%	0.00%	12.47%
2013	31.42	177,718	0	177,718	156,188	21,530	65%	0.00%	0.00%	12.11%
2014	32.96	180,520	0	180,520	158,508	22,012	63%	0.00%	0.00%	12.19%
2015	34.35	197,116	0	197,116	172,466	24,649	66%	0.00%	0.00%	12.51%
2016	36.53	209,620	0	209,620	188,073	21,547	66%	0.00%	0.00%	10.28%
2017	39.08	209,458	0	209,458	190,119	19,339	61%	0.00%	0.00%	9.23%
2018	42.00	238,646	0	238,646	210,028	28,618	65%	0.00%	0.00%	11.99%
2019	45.63	273,362	0	273,362	244,090	29,272	68%	0.00%	0.00%	10.71%

Peak Demand increased from 42 MW in 2018 to 45.63 MW in 2019 at a rate of 8.64% due to the entry of big loads in the last quarter such as mall and cement plant. MWh Offtake increased from 238,646 MWh in 2018 to 273,362 MWh in 2019 at a rate of 14.55% due to the increase in demand requirements. Within the same period, Load Factor ranged from 65% to 68%. There was an abrupt change in consumption on 2019 due to the said entry of big loads.

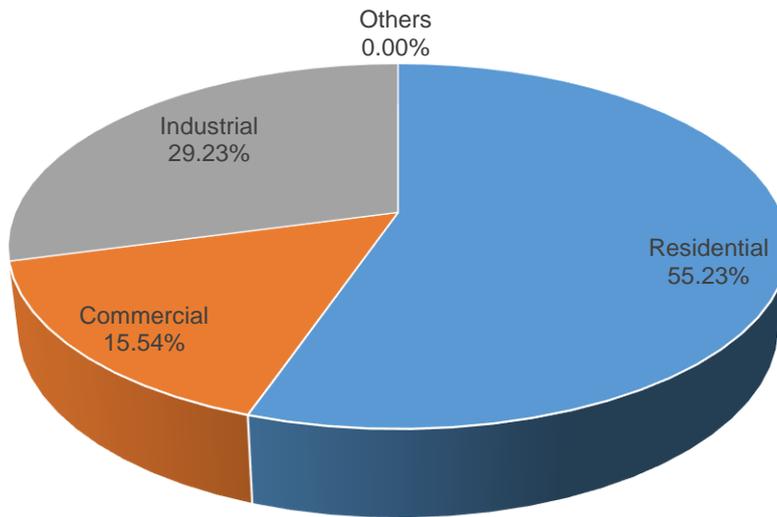


MWh Output increased from year 2018 to year 2019 at a rate of 16.22%, while MWh System Loss increased at a rate of 2.29% within the same period.



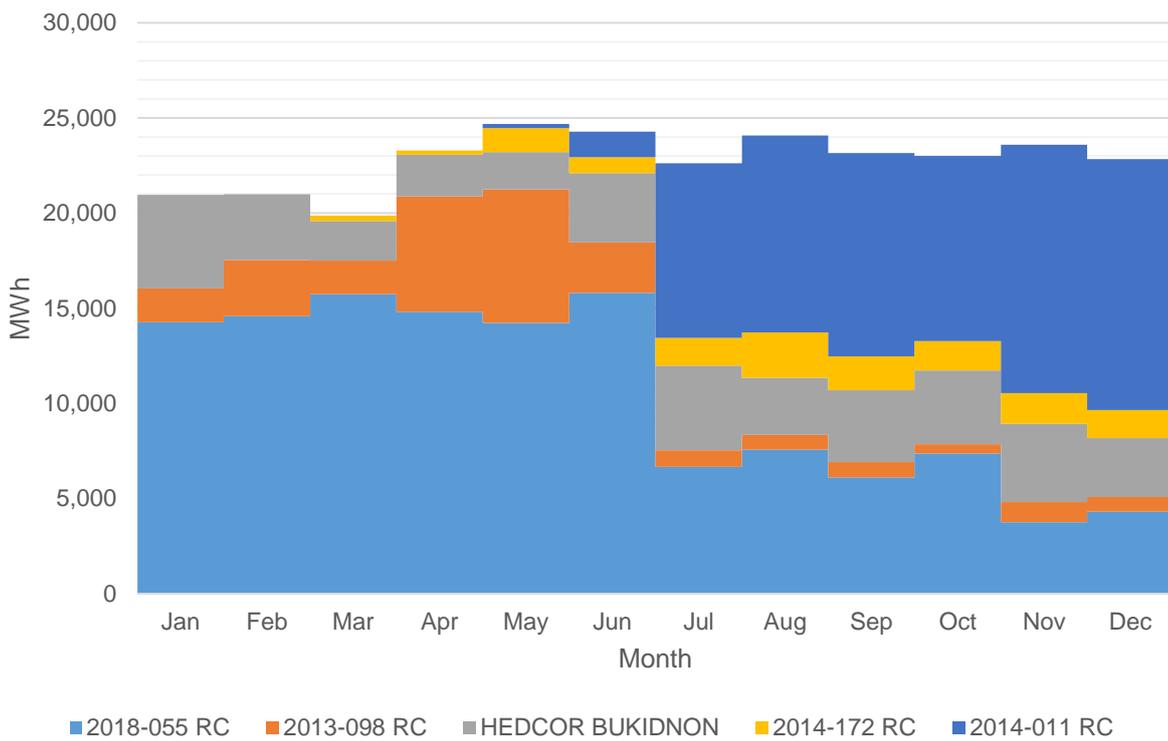
Historically, there is no available data for Transmission Loss while System Loss ranged from 9.23% to 15.52%. System Loss peaked at 12.73% on year 2011 because of the delayed approval and implementation of the Capital Expenditure Projects which will help reduce the system loss.

Previous Year's Shares of Energy Sales

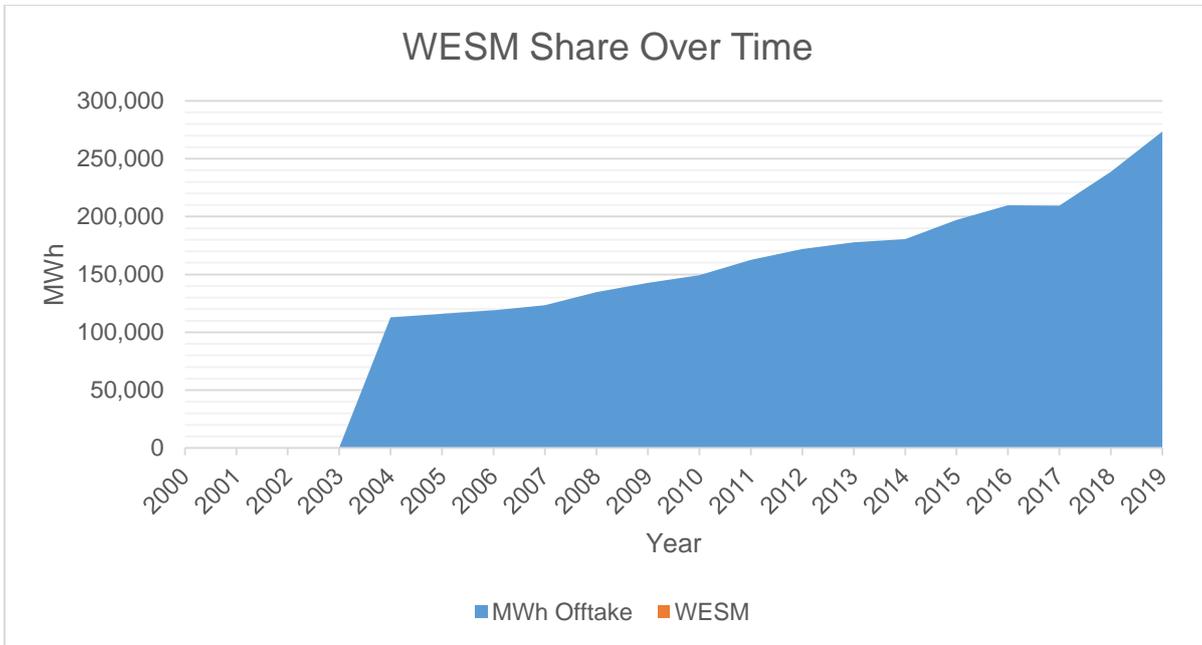


Residential customers account for the bulk of energy sales at 55.23% due to the high number of connections. In contrast, Commercial customers accounted for only 15.54% of energy sales despite of the high number of connections.

MWh Offtake for Last Historical Year

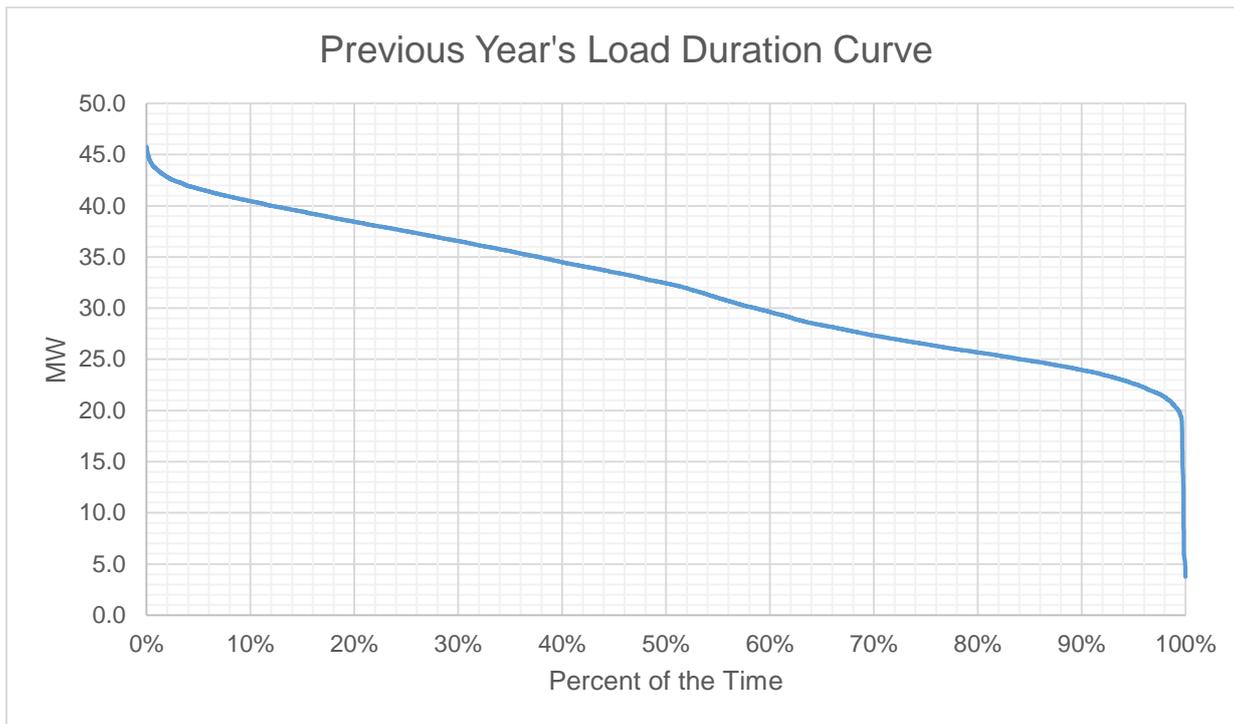


For 2019, the total Offtake for the last historical year is lower than the quantity stipulated in the PSA. The PSA with Power Sector Assets and Liabilities Management (PSALM) accounts for the bulk of MWh Offtake.

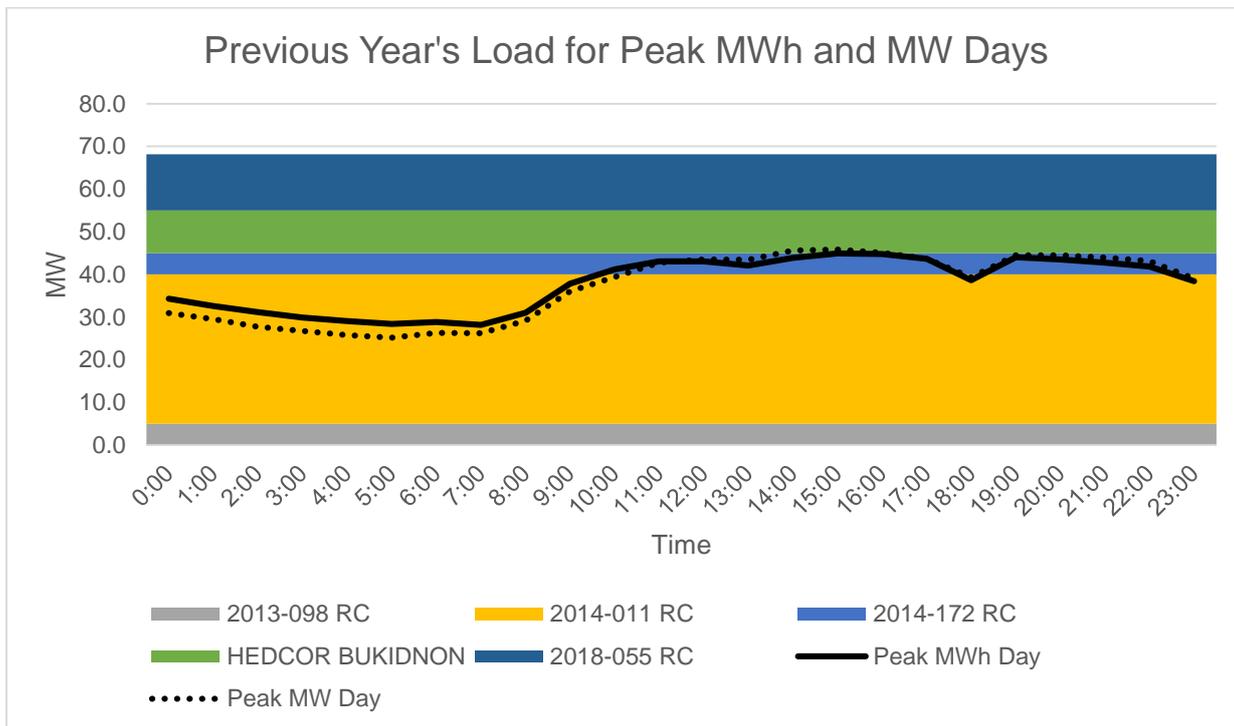


Historically, there are no available data for Transmission Loss from the start until there were update on the System Loss Cap from the Energy Regulatory Commission (ERC) under Resolution No.11 Series of 2011, Resolution No.10 2c Series of 2018 and Resolution No. 20, Series of 2017 entitled “**Rules for Setting the Distribution System Loss Cap and Establishing Performance Incentive Scheme for Distribution Efficiency**” in which the **DSL = SUBTRANSMISSION LOSS + SUBSTATION LOSS + FEEDER LOSS**. System Loss peaked at 12.73% on year 2011 because of the delayed approval and implementation of the Capital Expenditure Projects which will help reduce the system loss.

Previous Year's Load Profile

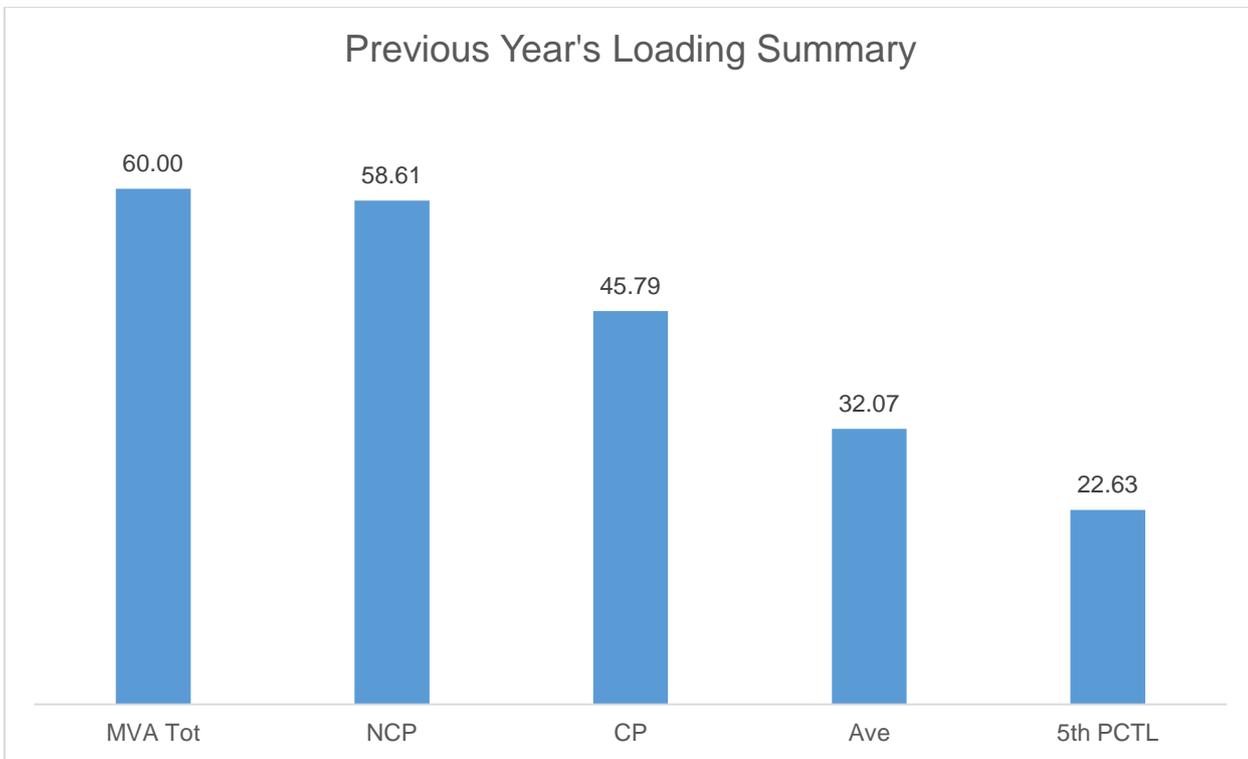


Based on the Load Duration Curve, the minimum load is 3.746 MW and the maximum load is 45.787 MW for the last historical year.



Peak MW occurred on May 16, 2019 due to dry season. Peak daily MWh occurred on May 29, 2019 due to dry season. As shown in the Load Curves, the available supply is higher than the Peak Demand.

Previous Year's Loading Summary



The Non-coincident Peak Demand is 58.61 MW, which is around 97.68% of the total substation capacity of 60 MVA at a power factor of 0.8. The load factor or the ratio between the Average Load of 32.07 MW and the Non-coincident Peak Demand is 70.03% of. A safe estimate of the true minimum load is the fifth percentile load of 22.63 MW which is 38.61% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
M1-POLO	10	13.558
M2-SALUG	5	3.797
M3-PIAO	5	5.641
M4-OBAY	20	20.714
M5-LILOY	5	5.677
M6-IRASAN	10	4.039
M7-SINDANGAN	5	5.183

The substations loaded at above 70% are M3-Piao, M4-Obay, M5-Liloy and M6-Sindangan substations. This loading problem will be solved by implementing the Capital Expenditure projects 2019-2021 such as the installation of substations in Piñan, Labason and Sindangan additional power transformers.

Forecasted Consumption Data

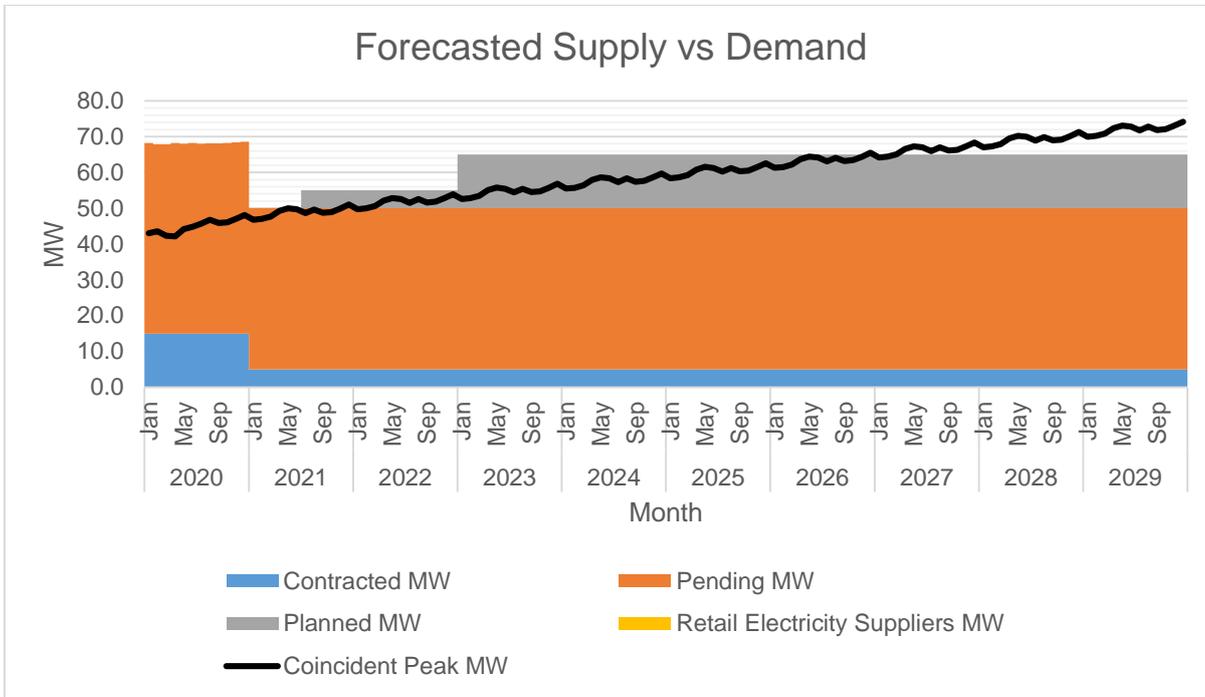
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2020	Jan	43.06	15.00	53.18	0.000		35%	158%	25.12
	Feb	43.58	15.00	52.83	0.000		34%	156%	24.25
	Mar	42.26	15.00	52.86	0.000		35%	161%	25.60
	Apr	42.14	15.00	53.17	0.000		36%	162%	26.04
	May	44.20	15.00	53.03	0.000		34%	154%	23.83
	Jun	44.84	15.00	53.24	0.000		33%	152%	23.40
	Jul	45.73	15.00	53.04	0.000		33%	149%	22.31
	Aug	46.75	15.00	53.16	0.000		32%	146%	21.41
	Sep	45.83	15.00	53.10	0.000		33%	149%	22.27
	Oct	46.04	15.00	53.23	0.000		33%	148%	22.19
	Nov	47.02	15.00	53.41	0.000		32%	145%	21.39
	Dec	48.13	15.00	53.54	0.000		31%	142%	20.41
2021	Jan	46.80	5.00	45.00	0.000		11%	107%	3.20
	Feb	47.05	5.00	45.00	0.000		11%	106%	2.95
	Mar	47.70	5.00	45.00	0.000		10%	105%	2.30
	Apr	49.23	5.00	45.00	0.000		10%	102%	0.77
	May	49.96	5.00	45.00	0.000		10%	100%	0.04
	Jun	49.67	5.00	45.00	0.000		10%	101%	0.33
	Jul	48.62	5.00	45.00	5.000		10%	113%	6.38
	Aug	49.64	5.00	45.00	5.000		10%	111%	5.36
	Sep	48.73	5.00	45.00	5.000		10%	113%	6.27
	Oct	48.94	5.00	45.00	5.000		10%	112%	6.06
	Nov	49.91	5.00	45.00	5.000		10%	110%	5.09
	Dec	51.02	5.00	45.00	5.000		10%	108%	3.98
2022	Jan	49.69	5.00	45.00	5.000		10%	111%	5.31
	Feb	49.94	5.00	45.00	5.000		10%	110%	5.06
	Mar	50.59	5.00	45.00	5.000		10%	109%	4.41
	Apr	52.13	5.00	45.00	5.000		10%	106%	2.87
	May	52.85	5.00	45.00	5.000		9%	104%	2.15

	Jun	52.56	5.00	45.00	5.000		10%	105%	2.44
	Jul	51.51	5.00	45.00	5.000		10%	107%	3.49
	Aug	52.53	5.00	45.00	5.000		10%	105%	2.47
	Sep	51.62	5.00	45.00	5.000		10%	107%	3.38
	Oct	51.83	5.00	45.00	5.000		10%	106%	3.17
	Nov	52.81	5.00	45.00	5.000		9%	104%	2.19
	Dec	53.91	5.00	45.00	5.000		9%	102%	1.09
2023	Jan	52.58	5.00	45.00	15.000		10%	124%	12.42
	Feb	52.83	5.00	45.00	15.000		9%	123%	12.17
	Mar	53.48	5.00	45.00	15.000		9%	122%	11.52
	Apr	55.02	5.00	45.00	15.000		9%	118%	9.98
	May	55.74	5.00	45.00	15.000		9%	117%	9.26
	Jun	55.45	5.00	45.00	15.000		9%	117%	9.55
	Jul	54.40	5.00	45.00	15.000		9%	119%	10.60
	Aug	55.43	5.00	45.00	15.000		9%	117%	9.57
	Sep	54.51	5.00	45.00	15.000		9%	119%	10.49
	Oct	54.72	5.00	45.00	15.000		9%	119%	10.28
	Nov	55.70	5.00	45.00	15.000		9%	117%	9.30
	Dec	56.81	5.00	45.00	15.000		9%	114%	8.19
2024	Jan	55.47	5.00	45.00	15.000		9%	117%	9.53
	Feb	55.72	5.00	45.00	15.000		9%	117%	9.28
	Mar	56.37	5.00	45.00	15.000		9%	115%	8.63
	Apr	57.91	5.00	45.00	15.000		9%	112%	7.09
	May	58.64	5.00	45.00	15.000		9%	111%	6.36
	Jun	58.35	5.00	45.00	15.000		9%	111%	6.65
	Jul	57.30	5.00	45.00	15.000		9%	113%	7.70
	Aug	58.32	5.00	45.00	15.000		9%	111%	6.68
	Sep	57.40	5.00	45.00	15.000		9%	113%	7.60
	Oct	57.61	5.00	45.00	15.000		9%	113%	7.39
	Nov	58.59	5.00	45.00	15.000		9%	111%	6.41
	Dec	59.70	5.00	45.00	15.000		8%	109%	5.30
2025	Jan	58.37	5.00	45.00	15.000		9%	111%	6.63
	Feb	58.61	5.00	45.00	15.000		9%	111%	6.39
	Mar	59.26	5.00	45.00	15.000		8%	110%	5.74
	Apr	60.80	5.00	45.00	15.000		8%	107%	4.20

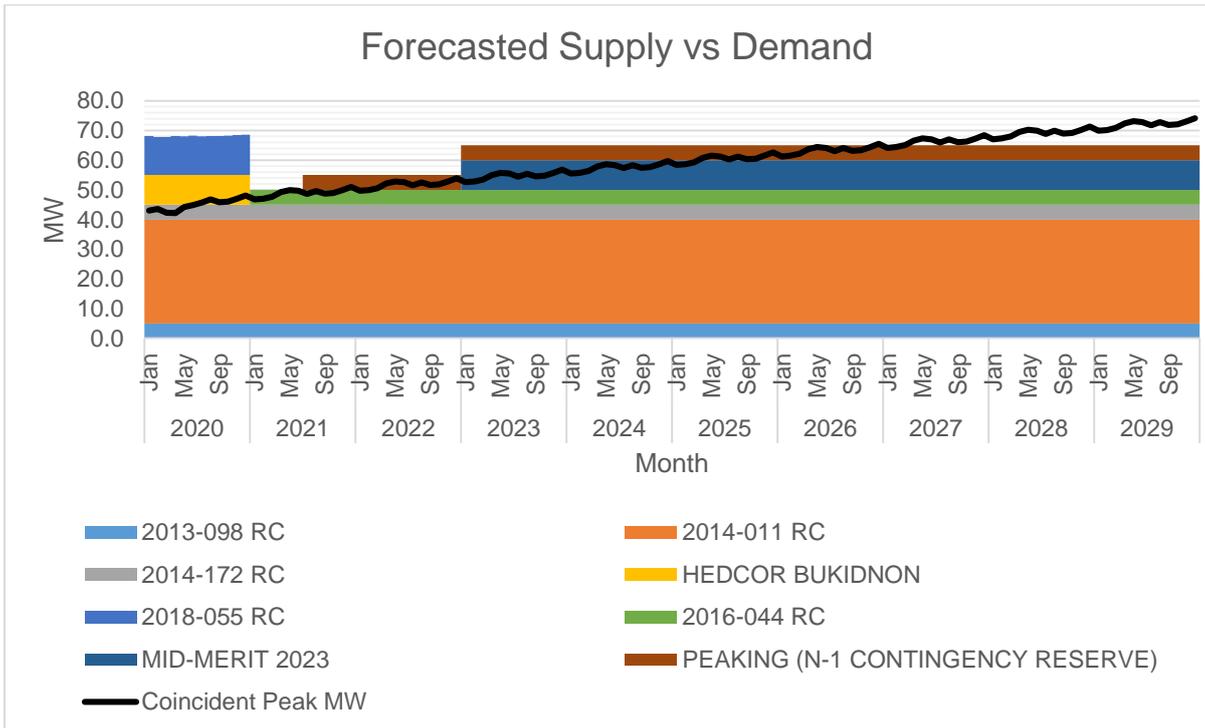
	May	61.53	5.00	45.00	15.000		8%	106%	3.47
	Jun	61.24	5.00	45.00	15.000		8%	106%	3.76
	Jul	60.19	5.00	45.00	15.000		8%	108%	4.81
	Aug	61.21	5.00	45.00	15.000		8%	106%	3.79
	Sep	60.30	5.00	45.00	15.000		8%	108%	4.70
	Oct	60.50	5.00	45.00	15.000		8%	107%	4.50
	Nov	61.48	5.00	45.00	15.000		8%	106%	3.52
	Dec	62.59	5.00	45.00	15.000		8%	104%	2.41
2026	Jan	61.26	5.00	45.00	15.000		8%	106%	3.74
	Feb	61.51	5.00	45.00	15.000		8%	106%	3.49
	Mar	62.16	5.00	45.00	15.000		8%	105%	2.84
	Apr	63.70	5.00	45.00	15.000		8%	102%	1.30
	May	64.42	5.00	45.00	15.000		8%	101%	0.58
	Jun	64.13	5.00	45.00	15.000		8%	101%	0.87
	Jul	63.08	5.00	45.00	15.000		8%	103%	1.92
	Aug	64.10	5.00	45.00	15.000		8%	101%	0.90
	Sep	63.19	5.00	45.00	15.000		8%	103%	1.81
	Oct	63.40	5.00	45.00	15.000		8%	103%	1.60
	Nov	64.38	5.00	45.00	15.000		8%	101%	0.62
	Dec	65.48	5.00	45.00	15.000		8%	99%	-0.48
2027	Jan	64.15	5.00	45.00	15.000		8%	101%	0.85
	Feb	64.40	5.00	45.00	15.000		8%	101%	0.60
	Mar	65.05	5.00	45.00	15.000		8%	100%	-0.05
	Apr	66.59	5.00	45.00	15.000		8%	98%	-1.59
	May	67.31	5.00	45.00	15.000		7%	97%	-2.31
	Jun	67.02	5.00	45.00	15.000		7%	97%	-2.02
	Jul	65.97	5.00	45.00	15.000		8%	99%	-0.97
	Aug	67.00	5.00	45.00	15.000		7%	97%	-2.00
	Sep	66.08	5.00	45.00	15.000		8%	98%	-1.08
	Oct	66.29	5.00	45.00	15.000		8%	98%	-1.29
	Nov	67.27	5.00	45.00	15.000		7%	97%	-2.27
	Dec	68.38	5.00	45.00	15.000		7%	95%	-3.38
2028	Jan	67.04	5.00	45.00	15.000		7%	97%	-2.04
	Feb	67.29	5.00	45.00	15.000		7%	97%	-2.29
	Mar	67.94	5.00	45.00	15.000		7%	96%	-2.94

	Apr	69.48	5.00	45.00	15.000		7%	94%	-4.48
	May	70.21	5.00	45.00	15.000		7%	93%	-5.21
	Jun	69.92	5.00	45.00	15.000		7%	93%	-4.92
	Jul	68.86	5.00	45.00	15.000		7%	94%	-3.86
	Aug	69.89	5.00	45.00	15.000		7%	93%	-4.89
	Sep	68.97	5.00	45.00	15.000		7%	94%	-3.97
	Oct	69.18	5.00	45.00	15.000		7%	94%	-4.18
	Nov	70.16	5.00	45.00	15.000		7%	93%	-5.16
	Dec	71.27	5.00	45.00	15.000		7%	91%	-6.27
2029	Jan	69.94	5.00	45.00	15.000		7%	93%	-4.94
	Feb	70.18	5.00	45.00	15.000		7%	93%	-5.18
	Mar	70.83	5.00	45.00	15.000		7%	92%	-5.83
	Apr	72.37	5.00	45.00	15.000		7%	90%	-7.37
	May	73.10	5.00	45.00	15.000		7%	89%	-8.10
	Jun	72.81	5.00	45.00	15.000		7%	89%	-7.81
	Jul	71.76	5.00	45.00	15.000		7%	91%	-6.76
	Aug	72.78	5.00	45.00	15.000		7%	89%	-7.78
	Sep	71.87	5.00	45.00	15.000		7%	90%	-6.87
	Oct	72.07	5.00	45.00	15.000		7%	90%	-7.07
	Nov	73.05	5.00	45.00	15.000		7%	89%	-8.05
	Dec	74.16	5.00	45.00	15.000		7%	88%	-9.16

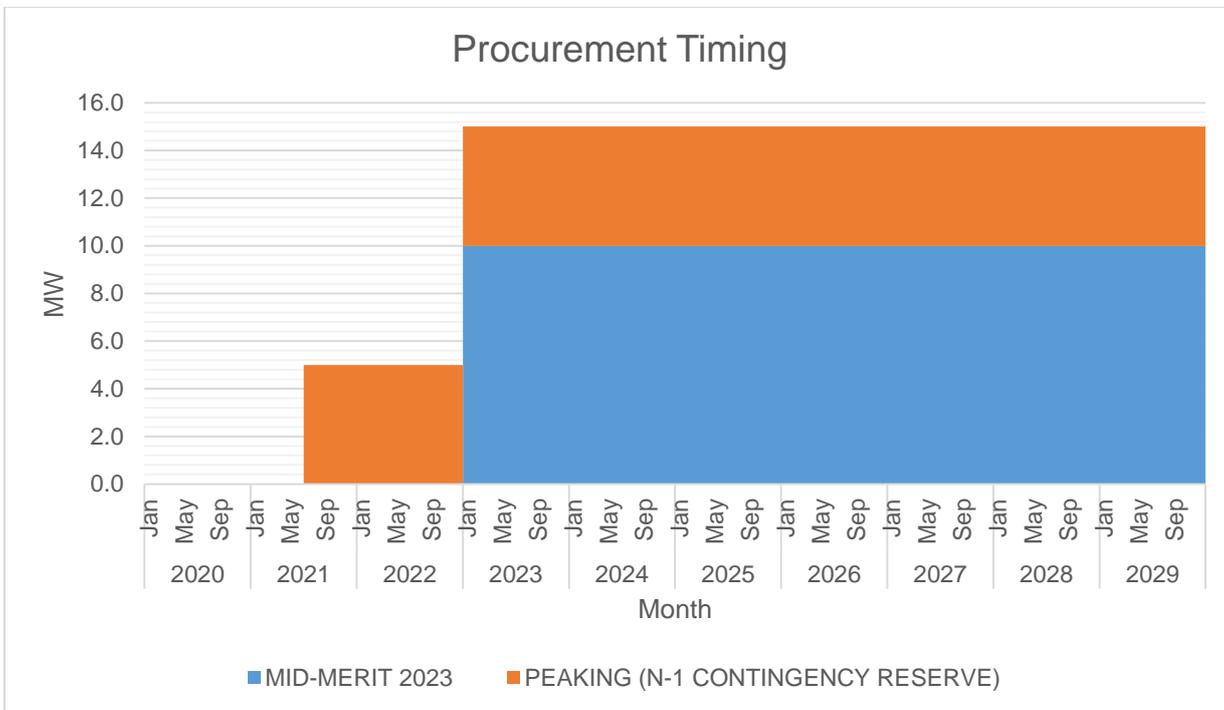
The Peak Demand, except for January 2020 to June 2020 which is based on actual NGCP metering data, was forecasted using Short Term Load Forecasting using Seasonal Effects and was assumed to occur on the month of December 2029 based on seven (7) years historical loads. Monthly Peak Demand is at its lowest on the month of April 2020 based on the actual metering data of NGCP. In general, Peak Demand is expected to grow at a rate of 3.0% annually.



The available supply is generally above the Peak Demand. This is because of securing enough reserved supply in case of shutdown of the other power plants and the abrupt increase of load requirements.



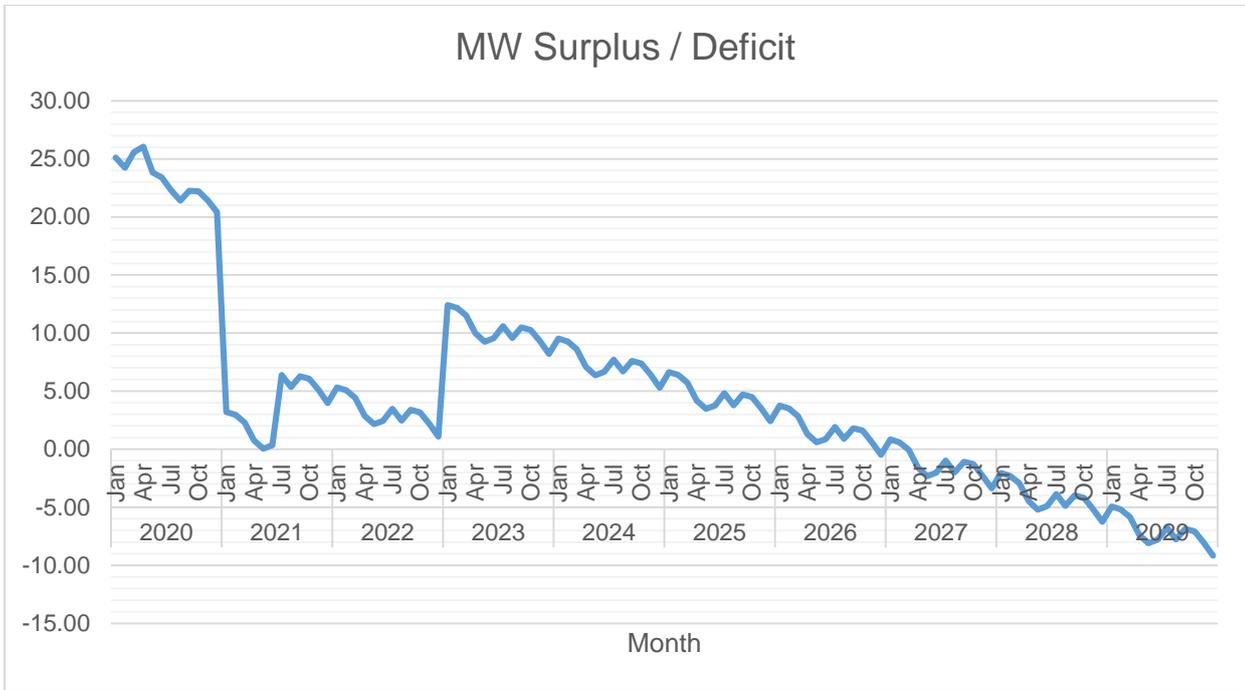
Of the available supply, the largest is 35 MW from GN Power Kauswagan Ltd. Co. This is followed by 10 MW from Hedcor Bukidnon, Inc.



The first wave of supply procurement will be for 5 MW planned to be available by the month of July 2021. This will be followed by a 10 MW mid-merit supply.



Currently, the contracting level is 32% however, ERC has already granted provisional authority from other power supply agreements which allows them to deliver supply to ZANECO. The highest target contracting level is 162% which is expected to occur on April 2020 however, 5MW of which from Astronergy Development Dipolog Inc. is still pending for ERC approval and was affected by the Supreme Court Decision of the CSP requirement. The lowest target contracting level is 88% which is expected to occur on December 2029.



Currently, there is over-contracting by 21.41MW. The highest surplus is 26.04MW which is expected to occur on the month of April 2020. The lowest deficit is 9.16 MW which is expected to occur on the month of December 2029.

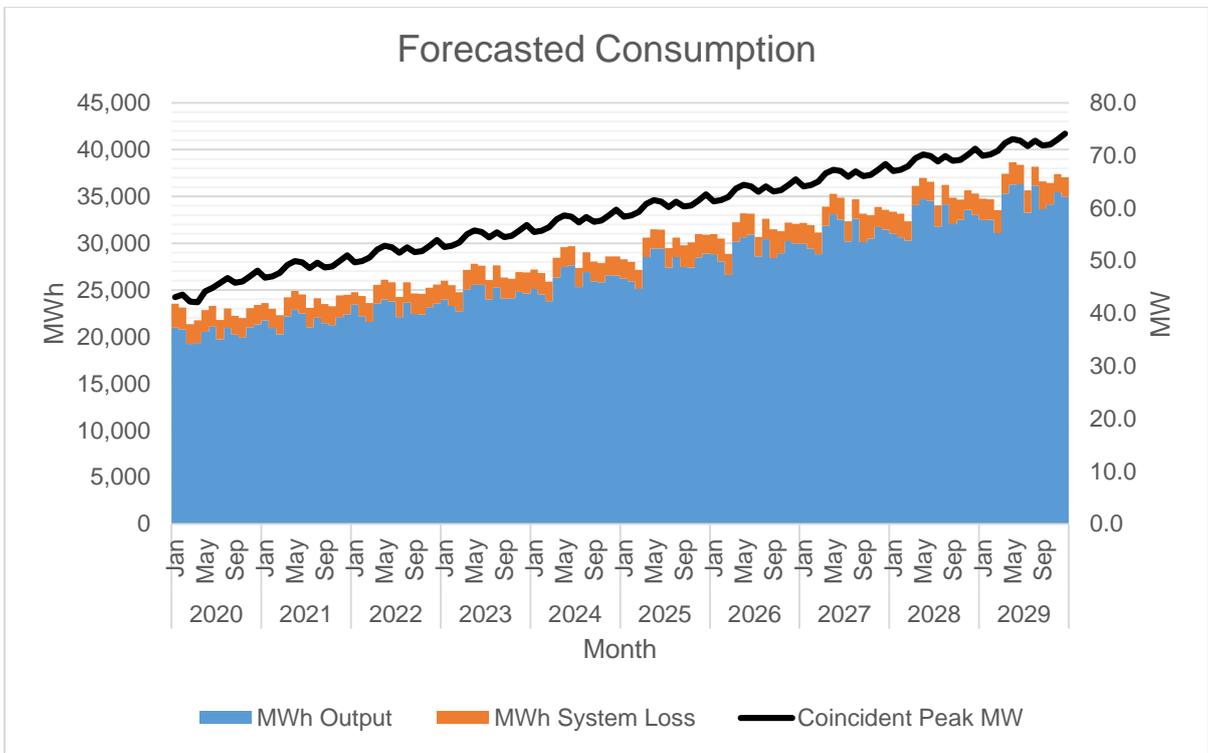
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2020	Jan	24,402	20,981	2,556	3.54%	10.86%
	Feb	24,124	20,783	2,361	4.06%	10.20%
	Mar	22,809	19,250	2,106	6.37%	9.86%
	Apr	23,031	19,334	2,436	5.47%	11.19%
	May	24,595	20,536	2,305	7.13%	10.09%
	Jun	25,353	21,077	2,233	8.06%	9.58%
	Jul	22,297	19,718	2,079	2.24%	9.54%
	Aug	23,532	20,942	2,090	2.13%	9.07%
	Sep	22,946	20,234	2,010	3.06%	9.04%
	Oct	22,708	19,936	2,074	3.07%	9.42%
	Nov	23,745	21,024	2,020	2.95%	8.77%
	Dec	23,893	21,309	2,084	2.09%	8.91%
2021	Jan	23,999	21,755	1,845	1.66%	7.82%
	Feb	23,849	20,949	2,049	3.57%	8.91%
	Mar	22,997	20,268	2,028	3.05%	9.10%
	Apr	24,960	22,166	2,044	3.01%	8.44%
	May	25,413	22,883	2,026	1.98%	8.13%
	Jun	24,913	22,465	2,048	1.61%	8.35%
	Jul	23,492	21,019	2,072	1.71%	8.97%
	Aug	24,727	22,044	2,083	2.43%	8.63%
	Sep	24,141	21,439	2,050	2.70%	8.73%
	Oct	23,903	21,250	2,002	2.72%	8.61%
	Nov	24,940	22,100	2,339	2.01%	9.57%
	Dec	25,087	22,421	2,067	2.39%	8.44%
2022	Jan	25,194	23,448	1,325	1.67%	5.35%
	Feb	25,043	22,213	2,129	2.80%	8.75%

	Mar	24,191	21,583	2,007	2.49%	8.51%
	Apr	26,155	23,528	2,025	2.30%	7.92%
	May	26,607	23,977	2,124	1.90%	8.14%
	Jun	26,108	23,766	2,040	1.16%	7.91%
	Jul	24,686	22,101	2,165	1.70%	8.92%
	Aug	26,422	23,639	2,185	2.26%	8.46%
	Sep	25,335	22,444	2,190	2.77%	8.89%
	Oct	25,098	22,367	2,230	2.00%	9.07%
	Nov	26,134	23,176	2,058	3.44%	8.16%
	Dec	26,282	23,531	2,051	2.66%	8.02%
2023	Jan	26,389	23,984	2,004	1.52%	7.71%
	Feb	26,238	23,304	2,208	2.77%	8.65%
	Mar	25,386	22,684	2,086	2.43%	8.42%
	Apr	27,850	25,038	2,110	2.52%	7.77%
	May	28,302	25,563	2,233	1.79%	8.03%
	Jun	27,903	25,556	2,043	1.09%	7.40%
	Jul	26,381	23,996	2,067	1.21%	7.93%
	Aug	28,117	25,229	2,385	1.79%	8.64%
	Sep	27,030	24,069	2,260	2.59%	8.58%
	Oct	26,793	24,108	2,082	2.25%	7.95%
	Nov	27,829	24,803	2,096	3.34%	7.79%
	Dec	27,477	24,641	2,236	2.19%	8.32%
2024	Jan	27,583	25,100	2,085	1.45%	7.67%
	Feb	27,433	24,510	2,289	2.31%	8.54%
	Mar	26,581	23,814	2,066	2.63%	7.98%
	Apr	29,144	26,347	2,091	2.42%	7.35%
	May	29,997	27,448	2,142	1.36%	7.24%
	Jun	29,998	27,621	2,053	1.08%	6.92%
	Jul	27,676	25,302	2,063	1.12%	7.54%
	Aug	29,811	26,925	2,087	2.68%	7.19%
	Sep	28,725	25,922	2,128	2.35%	7.59%
	Oct	28,487	25,831	2,033	2.19%	7.30%
	Nov	29,224	26,573	2,021	2.16%	7.07%
	Dec	29,172	26,546	2,025	2.06%	7.09%
2025	Jan	28,778	26,214	2,064	1.74%	7.30%
	Feb	28,628	25,924	2,068	2.22%	7.39%
	Mar	27,775	25,113	2,044	2.23%	7.53%
	Apr	31,239	28,509	2,079	2.08%	6.80%
	May	31,792	29,431	2,053	0.97%	6.52%
	Jun	31,692	29,402	2,054	0.74%	6.53%
	Jul	29,771	27,389	2,072	1.04%	7.03%
	Aug	31,506	28,528	2,087	2.83%	6.82%
	Sep	30,419	27,467	2,297	2.16%	7.72%
	Oct	30,182	27,395	2,686	0.34%	8.93%
	Nov	31,719	28,492	2,492	2.32%	8.04%
	Dec	31,366	28,885	2,021	1.47%	6.54%
2026	Jan	31,473	28,819	2,154	1.59%	6.95%
	Feb	31,322	28,050	2,458	2.60%	8.06%
	Mar	29,470	26,615	2,227	2.13%	7.72%
	Apr	32,934	30,159	2,063	2.16%	6.40%
	May	33,586	30,616	2,564	1.21%	7.73%

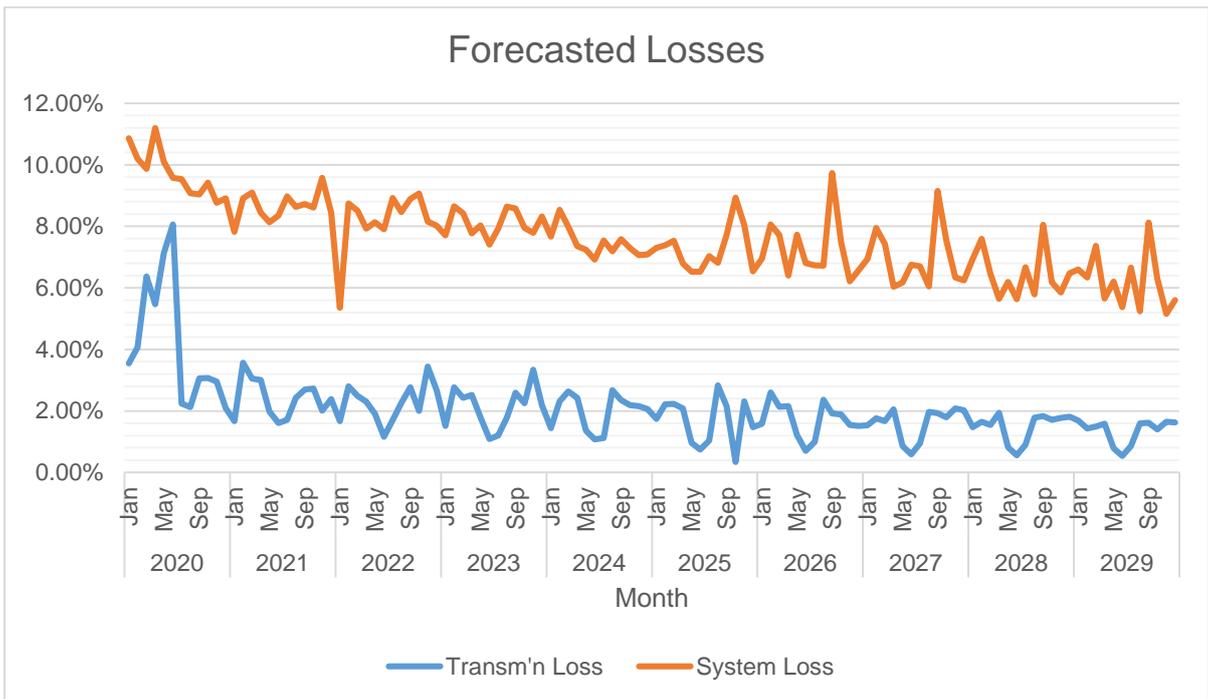
	Jun	33,387	30,896	2,256	0.71%	6.81%
	Jul	30,965	28,591	2,065	1.00%	6.74%
	Aug	33,401	30,417	2,193	2.37%	6.72%
	Sep	32,114	28,432	3,066	1.92%	9.73%
	Oct	31,877	28,936	2,339	1.89%	7.48%
	Nov	32,713	30,207	2,002	1.54%	6.22%
	Dec	32,561	29,962	2,106	1.51%	6.57%
2027	Jan	32,668	29,934	2,234	1.53%	6.94%
	Feb	32,517	29,405	2,539	1.76%	7.95%
	Mar	31,665	28,822	2,314	1.67%	7.43%
	Apr	34,629	31,868	2,048	2.06%	6.04%
	May	35,581	33,095	2,179	0.86%	6.18%
	Jun	35,082	32,520	2,357	0.59%	6.76%
	Jul	32,660	30,182	2,169	0.95%	6.70%
	Aug	35,396	32,598	2,099	1.97%	6.05%
	Sep	33,809	30,123	3,034	1.93%	9.15%
	Oct	33,572	30,480	2,490	1.79%	7.55%
	Nov	34,608	31,739	2,148	2.08%	6.34%
	Dec	34,256	31,467	2,096	2.02%	6.24%
2028	Jan	33,862	31,049	2,314	1.47%	6.94%
	Feb	33,712	30,637	2,518	1.65%	7.59%
	Mar	32,860	30,259	2,092	1.55%	6.47%
	Apr	36,823	34,075	2,036	1.93%	5.64%
	May	37,276	34,681	2,288	0.82%	6.19%
	Jun	36,777	34,512	2,059	0.56%	5.63%
	Jul	34,355	31,776	2,270	0.90%	6.67%
	Aug	36,890	34,134	2,097	1.79%	5.79%
	Sep	35,504	32,047	2,804	1.84%	8.05%
	Oct	35,266	32,520	2,143	1.71%	6.18%
	Nov	36,303	33,571	2,087	1.78%	5.85%
	Dec	35,951	33,013	2,285	1.81%	6.47%
2029	Jan	35,357	32,464	2,295	1.69%	6.60%
	Feb	35,207	32,503	2,199	1.43%	6.34%
	Mar	34,054	31,075	2,471	1.49%	7.37%
	Apr	38,018	35,299	2,116	1.59%	5.66%
	May	38,971	36,267	2,397	0.79%	6.20%
	Jun	38,571	36,304	2,061	0.53%	5.37%
	Jul	35,950	33,268	2,372	0.86%	6.66%
	Aug	38,785	36,164	2,001	1.60%	5.24%
	Sep	37,198	33,623	2,973	1.62%	8.12%
	Oct	36,961	34,148	2,295	1.40%	6.30%
	Nov	37,997	35,447	1,925	1.65%	5.15%
	Dec	37,645	34,958	2,074	1.63%	5.60%

MWh Offtake, except for January 2020 to June 2020 which is based on the actual energy delivered of the power suppliers, was forecasted using Short Term Load Forecasting using Seasonal Effects.

System Loss was calculated through a Load Flow Study conducted on March of 2020 by the Technical Data Processors (TDP) using Synergee software. Based on the same study, the Distribution System can adequately convey electricity to customers.



MWh Output was expected to grow at an average rate of 6.0% annually.



Transmission Loss is expected to range from 4.18% to 1.36% while System Loss is expected to range from 9.71% to 6.22%. The system loss will likely get the single digit when the two (2) Multiyear Capital projects (CapEx) 2016-2018 and 2019-2021 applied to the Energy Regulatory Commission will be approved.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2013-098 RC	Base	Therma South, Inc.	2.00	17,520	9/18/2015	9/17/2040
HEDCOR BUKIDNON	Intermediate	HEDCOR Bukidnon, Inc.	1.00	8,760	7/2/2018	6/25/2020

The PSA with Therma South, Inc. filed with ERC under Case No. 2013-098 RC was through submission of proposal and was subsequently evaluated prior execution of PSA. It was selected to provide for baseload requirements due to the experienced region-wide power supply deficiency problem in Mindanao. Historically, the utilization of the PSA is 62%. Outages of the plant and reduced nomination led to unserved energy of around 16,817 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 4.54 P/kWh to 11.45 P/KWh in the same period.

The PSA with Hedcor Bukidnon Inc. submitted with ERC under an ERC-approved RESA-template for RE-eligible power plant was procured through submission of proposal and was subsequently evaluated prior execution of PSA. It was selected to provide for mid-merit requirements due to the expiration of supply contracts with Mapalad Power Corporation and Therma Marine, Inc.. Historically, the utilization of the PSA is 77%. Outages and the dependency on water levels of the plant led to unserved energy of around 11,954 MWh in the past year using a load factor of 60%. The actual billed overall monthly charge under the PSA ranged from 3.07 P/kWh to 4.83 P/KWh in the same period.

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2014-011 RC	Base	GN Power Kauswagan Ltd.	26.25	229,950	8/26/2019	8/25/2039
2014-172 RC	Base	Sarangani Energy Corporation	2.00	17,520	10/10/2019	10/9/2044
2018-055 RC	Intermediate	Power Sector Assets and Liabilities Management Corporation	1.00	8,760	12/26/2017	12/25/2020
2016-044 RC	Intermediate	Other	1.00	8,760	1/1/2021	12/31/2045

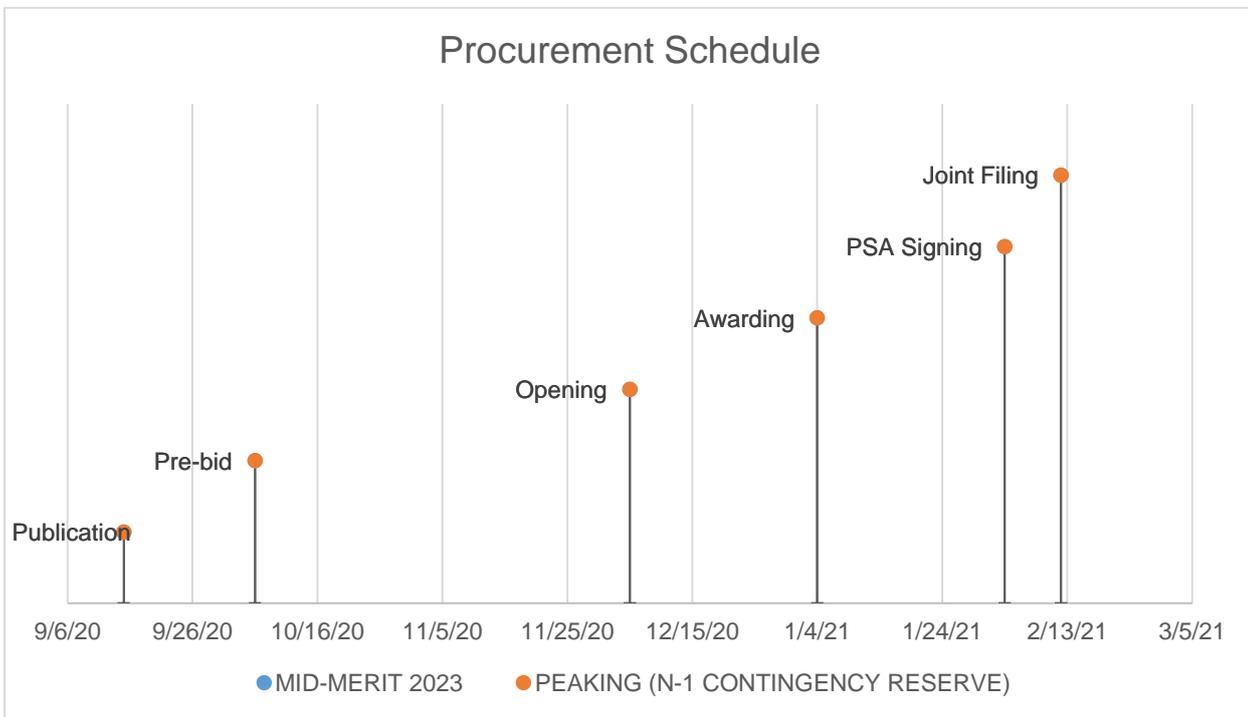
The PSA with GN Power Kauswagan Ltd. Co. filed with ERC under Case No. 2014-011 RC was procured through a competitive bidding. It was selected to provide for baseload requirements due to the insufficiency of existing supply in Mindanao and to address power shortfall in the future. Historically, the utilization of the PSA is 46%. Outages of the plant and reduction of nomination led to unserved energy of around 78,235 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 2.39 P/kWh to 5.87 P/KWh in the same period.

The PSA with Sarangani Energy Corporation filed with ERC under Case No. 2014-172 RC was procured through submission of proposal and was subsequently evaluated prior execution of PSA. It was selected to provide for baseload requirements due to the risk of suffering power shortages caused by the steadily increasing demand of power in the franchise area. Historically, the utilization of the PSA is 35%. Outages of the plant and reduced nomination led to unserved energy of around 23,645 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 2.40 P/kWh to 8.80 P/KWh in the same period.

The PSA with Power Sector Assets and Liabilities Management Corporation filed with ERC under Case No. 2018-055 RC was procured under the existing provisions of RA 9136. It was selected to provide for intermediate requirements due to the expiration of the existing Contracts for the Supply of Electric Energy (CSEE). Historically, the utilization of the PSA is 63%. Outages of the plant and reduced supply allocations led to unserved energy of around 70,434 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 1.70 P/kWh to 2.94 P/kWh in the same period.

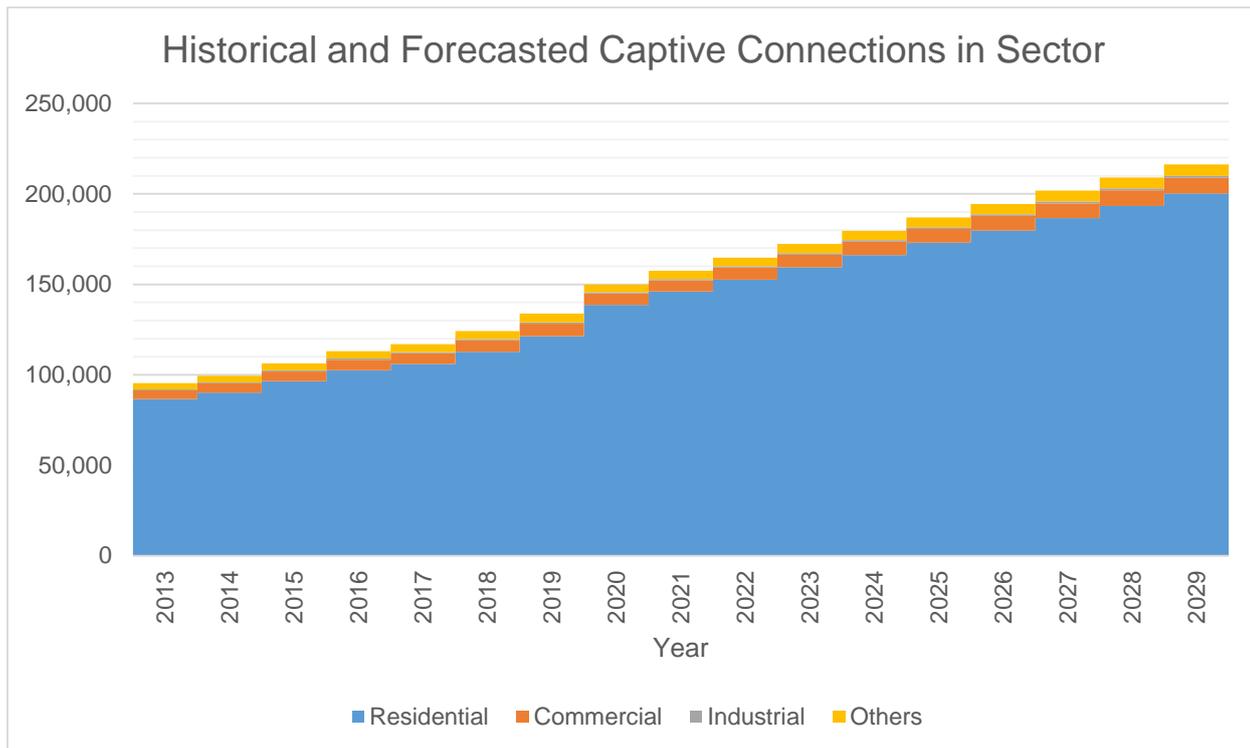
The PSA with Astronergy Development Dipolog Inc. filed with ERC under Case No. 2016-044 RC was procured through submission of proposal and was subsequently evaluated prior execution of PSA. It was selected to provide for intermediate requirements due to the reduced capacity and uncertainty of PSALM's supply, the experienced load curtailments and the increase of energy requirements of ZANECO customers in the next few years. However, this PSA was affected by the released Supreme Court Decision which requires PSAs submitted on or after June 30, 2015 to ERC must undergo CSP.

	MID-MERIT 2023	PEAKING (N-1 CONTINGENCY RESERVE)
Type	Intermediate	Peaking
Minimum MW	10.00	5.00
Minimum MWh/yr	70,080	80
PSA Start	1/1/2023	7/1/2021
PSA End	12/31/2047	12/31/2030
Publication	9/15/2020	9/15/2020
Pre-bid	10/6/2020	10/6/2020
Opening	12/5/2020	12/5/2020
Awarding	1/4/2021	1/4/2021
PSA Signing	2/3/2021	2/3/2021
Joint Filing	2/12/2021	2/12/2021



For the procurement of 10 MW and 5MW of supply which is planned to be available on July 2021 and January 2023 respectively, the first publication or launch of CSP will be on September 15, 2020. Joint filing is planned on February 12, 2020, or 150 days later, in accordance with DOE’s 2018 CSP Policy. However, these procurements were already approved by DOE and was published in its portal last February 2020.

Captive Customer Connections



The number of 86,814 residential connections is expected to grow at a rate of 4.75% annually. Said customer class is expected to account for 90.67% of the total consumption.