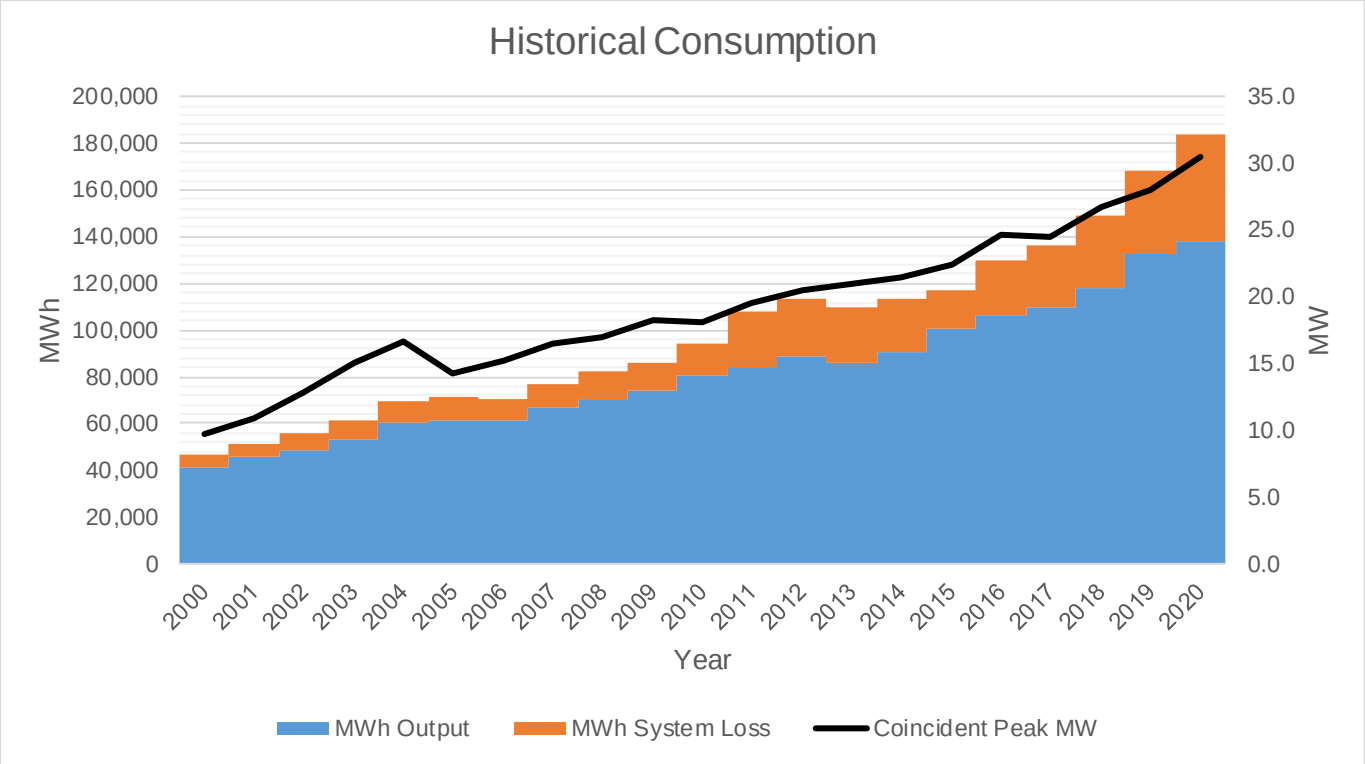
Power Supply Procurement Plan
2021

Zamboanga Del Sur II Electric Cooperative, Inc.
(ZAMSURECO II)

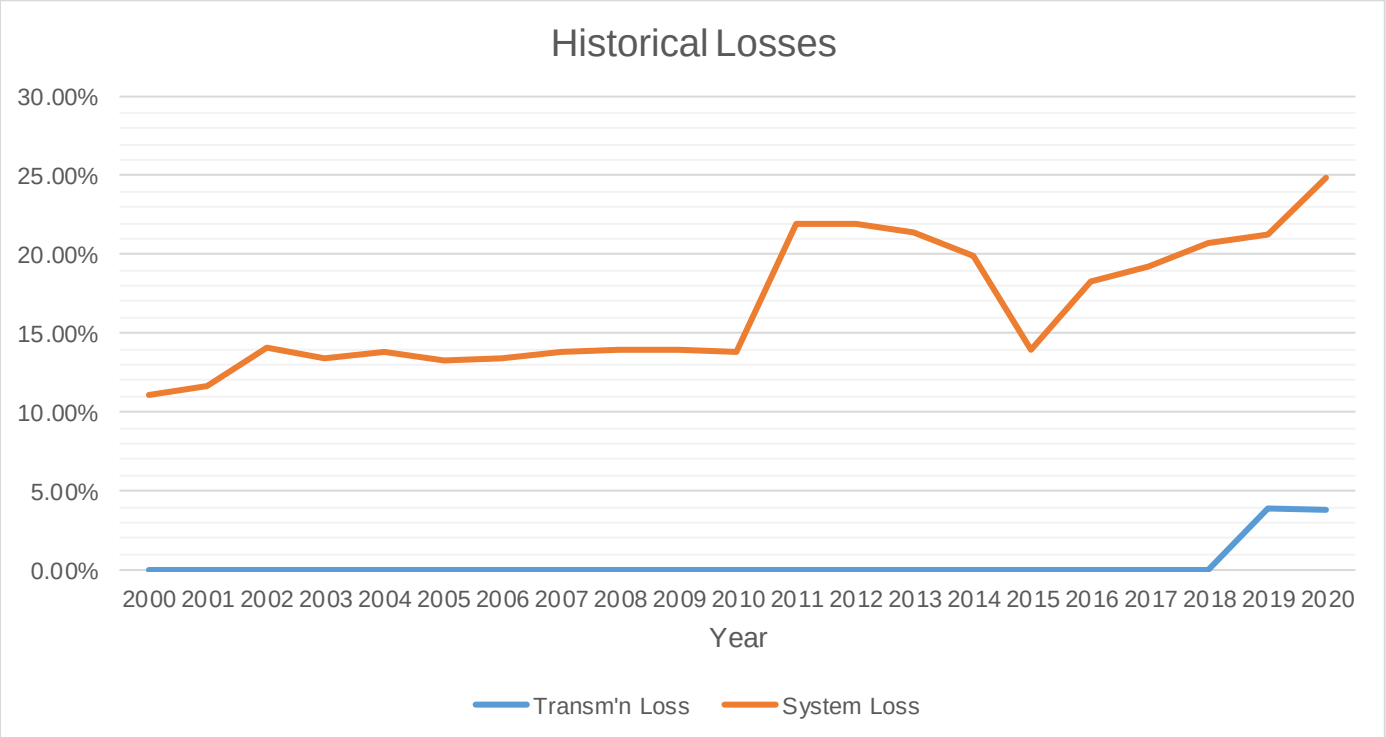
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	9.71	46,613	0	46,613	41,442	5,171	55%	0.00%	0.00%	11.09%
2001	10.98	51,735	0	51,735	45,709	6,026	54%	0.00%	0.00%	11.65%
2002	12.80	56,075	0	56,075	48,196	7,878	50%	0.00%	0.00%	14.05%
2003	15.13	61,589	0	61,589	53,353	8,235	46%	0.00%	0.00%	13.37%
2004	16.62	69,946	0	69,946	60,257	9,688	48%	0.00%	0.00%	13.85%
2005	14.32	71,111	0	71,111	61,690	9,420	57%	0.00%	0.00%	13.25%
2006	15.25	70,692	0	70,692	61,201	9,489	53%	0.00%	0.00%	13.42%
2007	16.49	77,066	0	77,066	66,391	10,676	53%	0.00%	0.00%	13.85%
2008	16.94	82,181	0	82,181	70,762	11,419	55%	0.00%	0.00%	13.89%
2009	18.23	86,385	0	86,385	74,386	12,000	54%	0.00%	0.00%	13.89%
2010	18.12	93,968	0	93,968	80,922	13,046	59%	0.00%	0.00%	13.88%
2011	19.48	107,948	0	107,948	84,299	23,649	63%	0.00%	0.00%	21.91%
2012	20.55	113,190	0	113,190	88,354	24,836	63%	0.00%	0.00%	21.94%
2013	21.02	109,706	0	109,706	86,166	23,540	60%	0.00%	0.00%	21.46%
2014	21.37	113,578	0	113,578	90,996	22,582	61%	0.00%	0.00%	19.88%
2015	22.43	116,791	0	116,791	100,476	16,315	59%	0.00%	0.00%	13.97%
2016	24.61	130,079	0	130,079	106,367	23,712	60%	0.00%	0.00%	18.23%
2017	24.47	135,784	0	135,784	109,607	26,176	63%	0.00%	0.00%	19.28%
2018	26.72	149,100	0	149,100	118,143	30,959	64%	0.00%	0.00%	20.76%
2019	28.03	175,016	0	168,188	132,520	35,668	68%	0.00%	3.90%	21.21%
2020	30.46	190,765	0	183,545	137,921	45,624	69%	0.00%	3.78%	24.86%

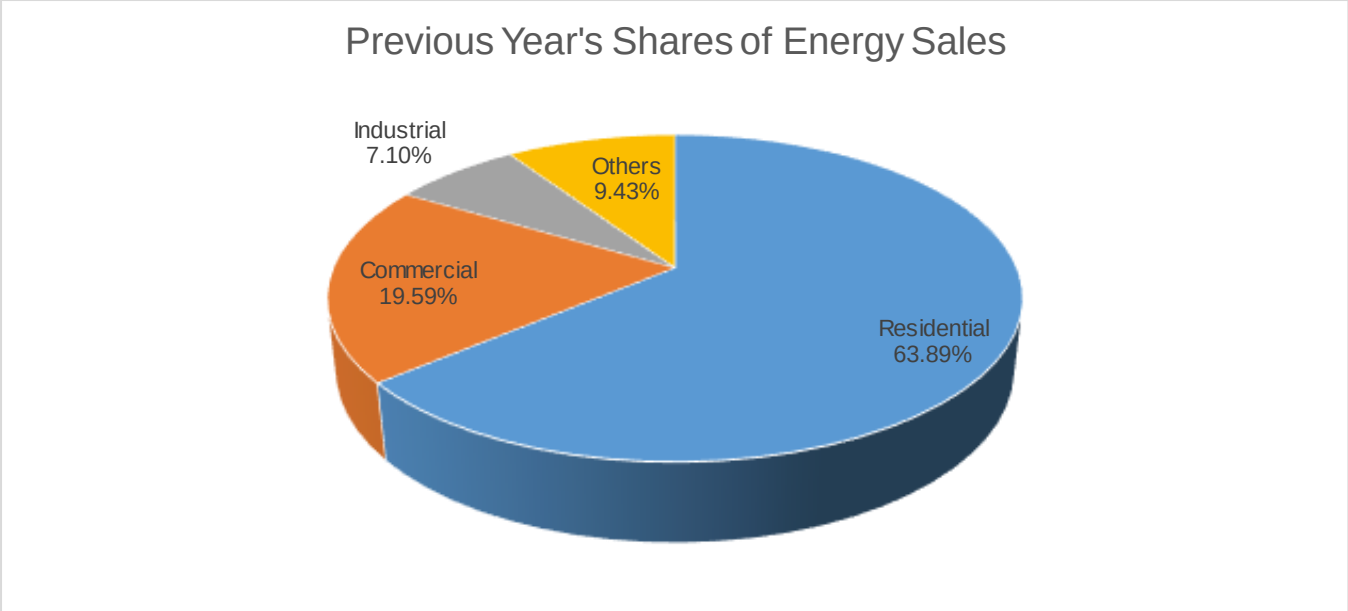
Peak Demand increased from 28.03 MW in 2019 to 20.46 MW in 2020 at a rate of 8.67% due to normal load growth. Despite the COVID 19 pandemic, MWh Offtake increased from 175,016 MWh in 2019 to 190,765 MWh in 2020 at a rate of 9% due to the effect of covid restriction on residents. Having a 92% of the consumer population being residential, the effect of covid increased the residential consumption. Within the same period, Load Factor ranged from 65.5% to 72.3%.



MWh Output [increased/decreased] from year 2019 to year 2020 at a rate of 4%, while MWh System Loss increased at a rate of 17.7% within the same period.



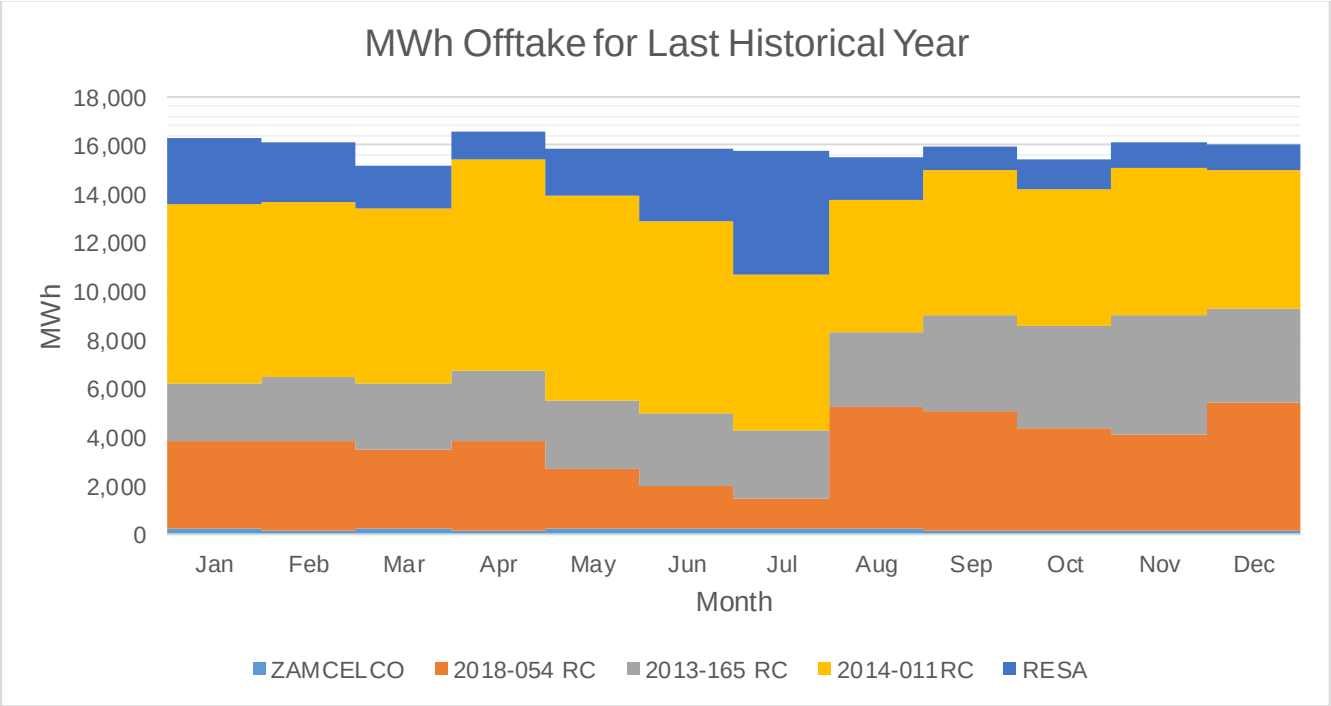
Historically, Transmission Loss ranged from 3.7% to 3.9% while System Loss ranged from 20% to 25%. Transmission Loss peaked at 3.9% on year 2019. System Loss peaked at 24.86% on year 2020 because of operational adjustments and corrections.



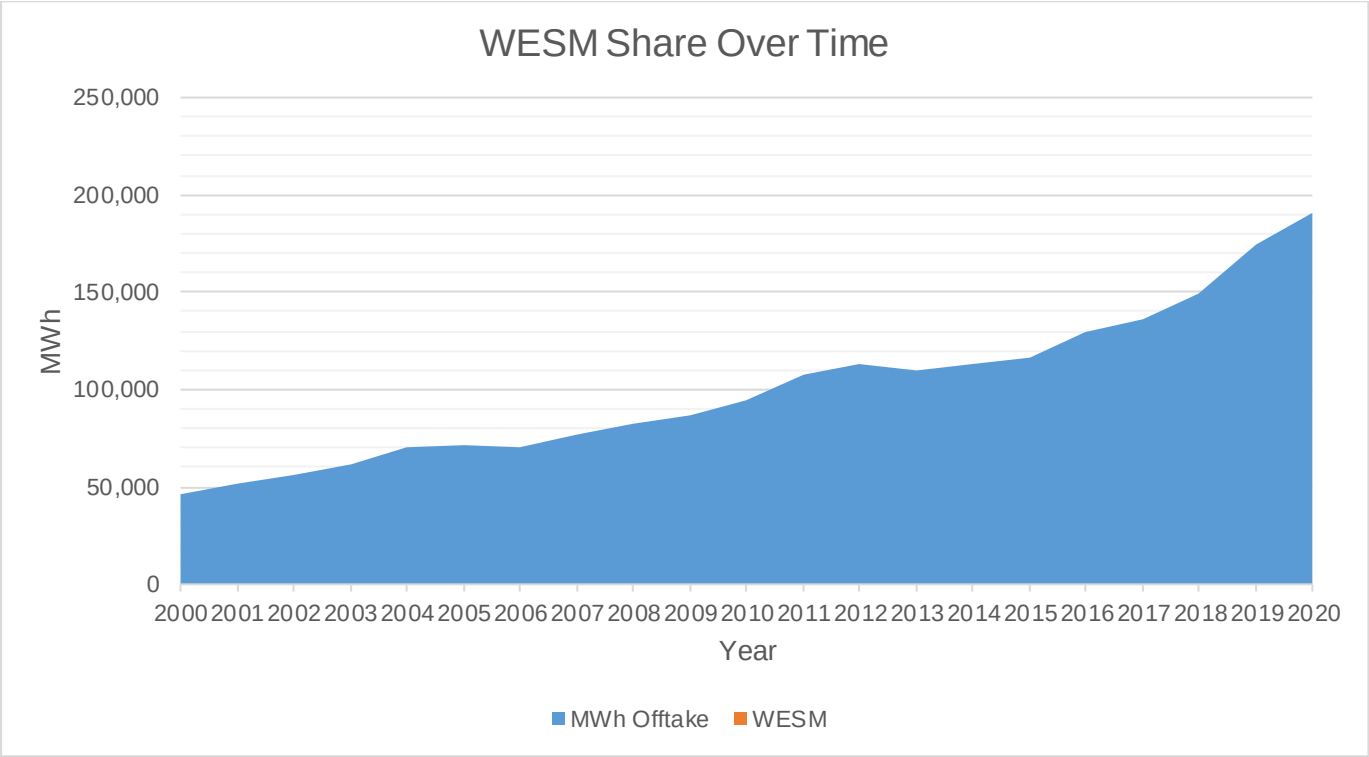
Residential customers account for the bulk of energy sales at 64% due to the high number of connections. In contrast, industrial customers accounted for only 7% of energy sales due to the low number of connections.

In comparison to year 2019, the year 2020 recorded an increase in energy sales by 4.9% despite the effects of the pandemic. Looking at the sales per customer type, residential consumers reflected an increase by 12.8% in consumption while the commercial and industrial consumers had a decline of 4.1% and 7.1% respectively. These figures are reflective of the level of share residential consumer to the total number of consumers the coop is serving. As the pandemic restricted the operations of commercial and industrial sector and resulted to a reduction in energy consumption. The residential type on the other hand increased due to movement restrictions.

For the coop's Own Use energy consumption, the decrease in the year 2020 was due to the installation of proper energy meters in the substations and in all coop facilities. On previous years, the coop use was mostly computed average or flat rate due to no meters installed. After installing meters on every facility of the coop, the correct Own Use is now reflected on the reports.



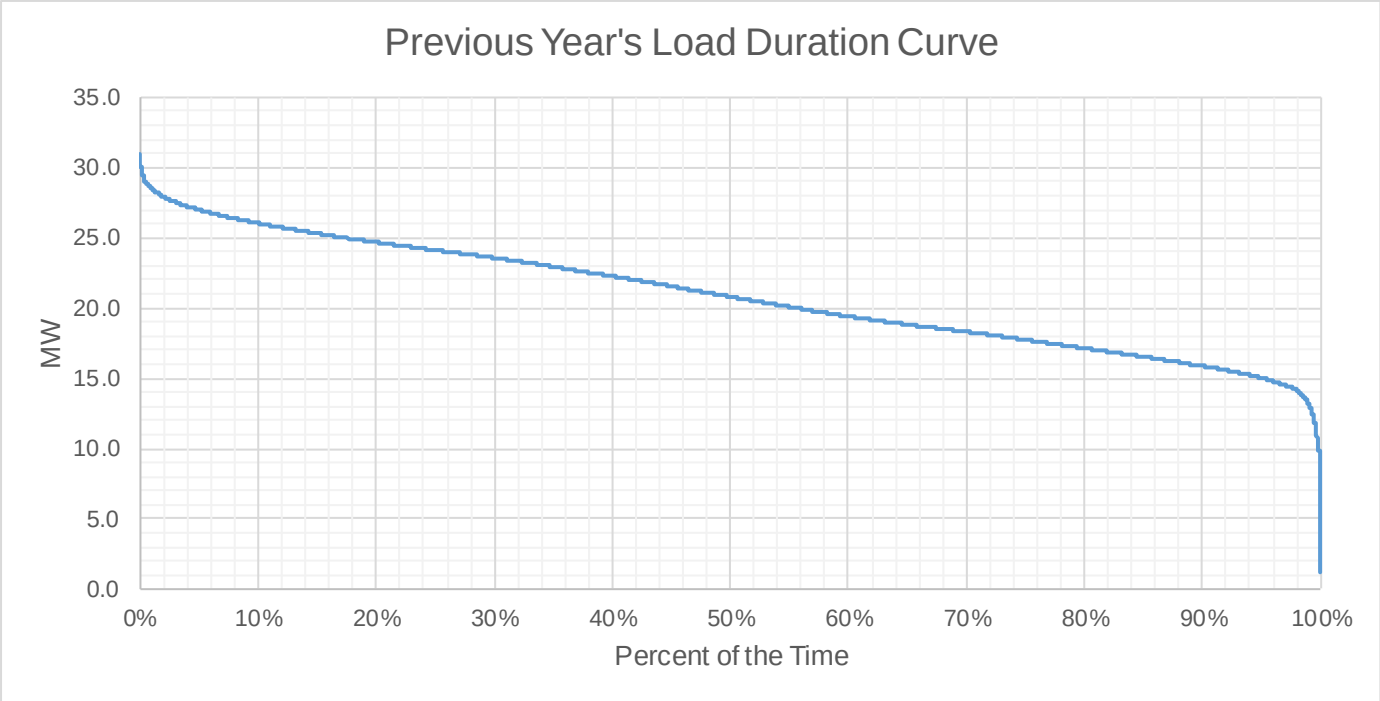
For RESA, the total Offtake for the last historical year is lower than the quantity stipulated in the RESA. The PSA with 2014-11RC accounts for the bulk of MWh Offtake.



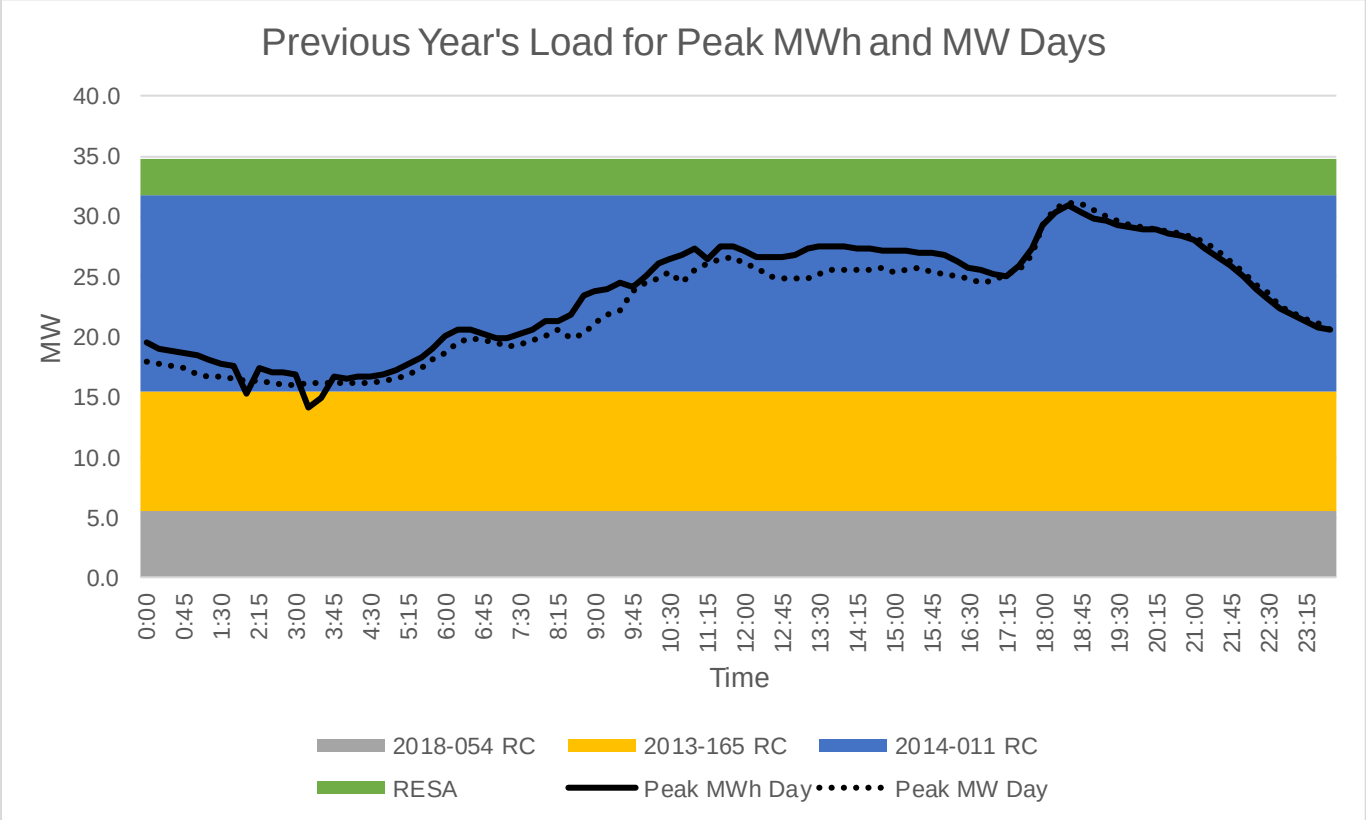
Since WESM is not yet operational in Mindanao, Energy Offtake relied solely in Power Supply Contracts with IPPs.

In terms of the implementation of the Wholesale Electricity Spot Market in Mindanao, ZAMSURECO II had already complied with the registration requirements and currently waiting for the computation of the Prudential Requirement from IEMOP. In the aspect of Metering Requirement, we are always coordinating with the MSP for the remaining compliances that need to be accomplished.

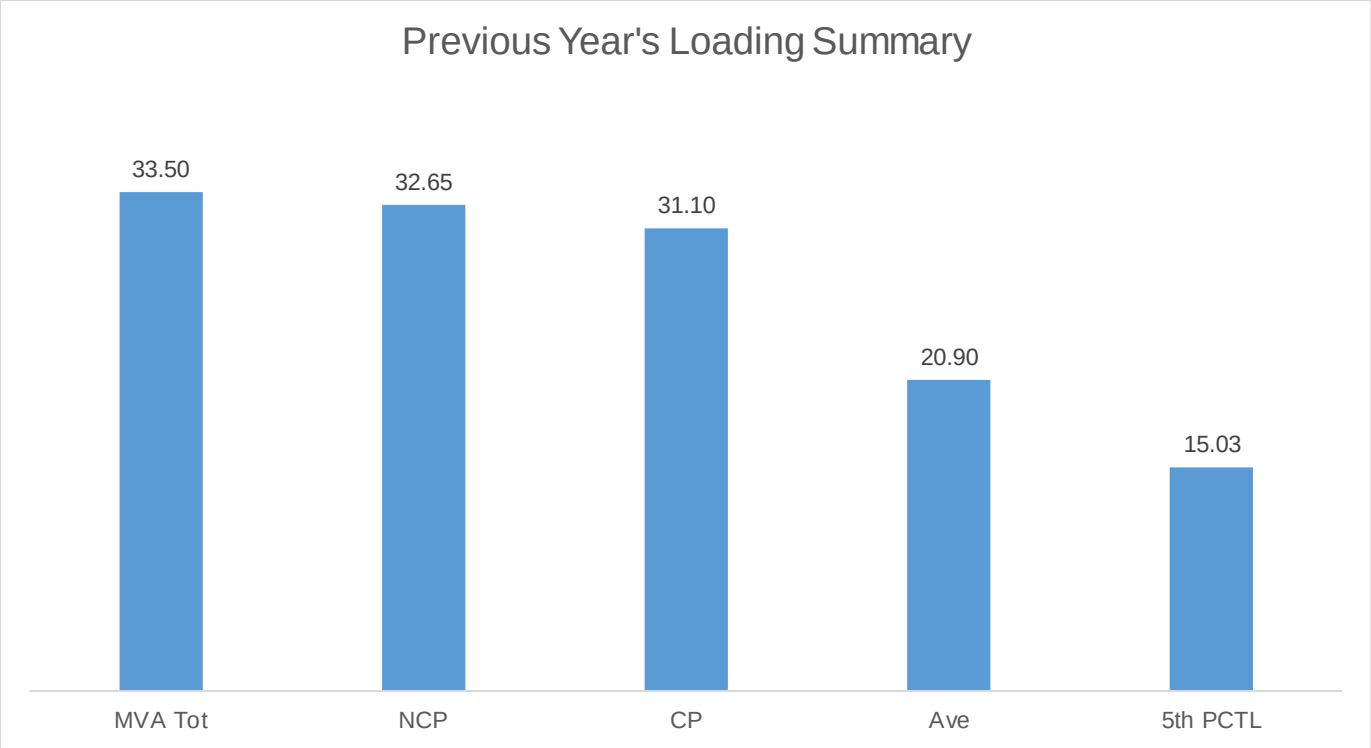
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 10 MW and the maximum load is 32 MW for the last historical year.



Peak MW occurred on 18:45 hrs due to residential type consumers where energy usage is at high during night time. Peak daily MWh occurred on 14:15 hr due to commercial establishments, industries, and government offices where in energy usage is almost consistent throughout the day. As shown in the Load Curves, the available supply is higher than the Peak Demand.



The Non-coincident Peak Demand is 32.5 MW, which is around 97% of the total substation capacity of 33.5 MVA at a power factor of 97.7%. The load factor or the ratio between the Average Load of 20.9 MW and the Non-coincident Peak Demand is 64.4% of. A safe estimate of the true minimum load is the fifth percentile load of 15.03 MW which is 46% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
M1-DANDA	5	5.6372
M2-PANGI	10	10.5582
M3-SIRAWAI	5	2.5288
M4-IMELDA	5	4.6627
M5-RTLIM	3.5	4.0857
M6-IMELDA	5	5.1778

Substation transformer of M1-Danda is already at 70% loading. This will be addressed by transferring of feeder loads to the adjacent substation which is M4-Imelda. With this, the municipality of Bayog which is originally connected to the feeder end of M1-Danda will now be connected to M4-Imelda.

Substation transformer of M2-Pangi is already at 70% loading. This will be addressed by the uprating of the power transformer from 10MVA to 20MVA. The project is targeted to be completed October of 2021.

Substation transformer of M4-Imelda is already at 70% loading. This will be addressed by the uprating of the power transformer from 5MVA to 10MVA where the decommissioned 10 MVA from M2-Ipil will be utilized to increase the capacity of M4-Imelda and be able to cater the additional load coming from M1-Danda. The project is targeted to be completed October of 2021.

Substation transformer of M5-RTLim is already at 70% loading. This will be addressed by the uprating of the power transformer from 3.5MVA to 10MVA on 2023. The immediate measure to address the overloading, load shifting will be implemented upon the completion of M2-Pangi Substation uprating since the 2 substations feeder are overlapping.

Substation transformer of M6-Imelda2 is already at 70% loading. This will be addressed by load shifting between the adjacent M4-Imelda and M6-Imelda2 substation. Once the M4-Imelda has been upgraded to 10MVA, load management for the 2 substations can be easily implemented.

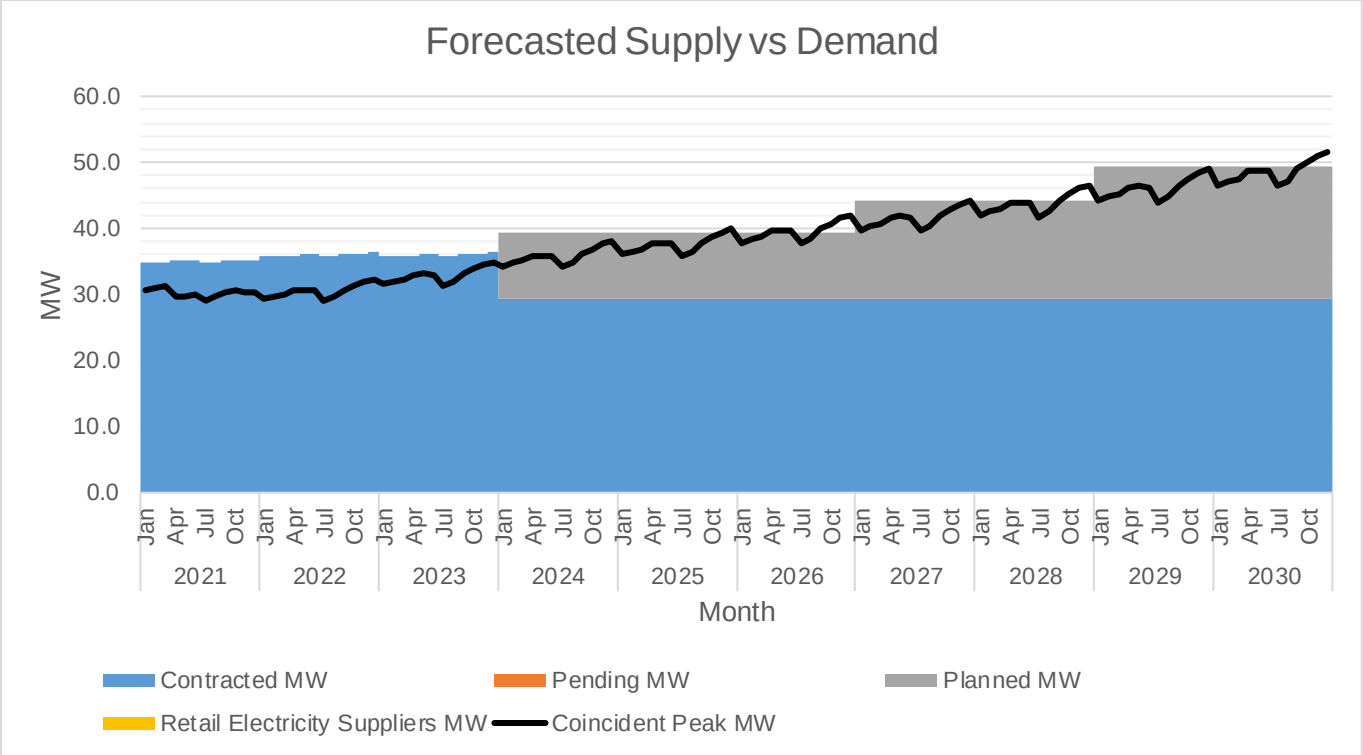
Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2021	Jan	30.70	34.77	0.00	0.000		113%	113%	4.07
	Feb	31.03	34.84	0.00	0.000		112%	112%	3.81
	Mar	31.22	34.89	0.00	0.000		112%	112%	3.68
	Apr	29.80	35.02	0.00	0.000		118%	118%	5.22
	May	29.78	35.04	0.00	0.000		118%	118%	5.26
	Jun	29.92	35.02	0.00	0.000		117%	117%	5.10
	Jul	29.06	34.75	0.00	0.000		120%	120%	5.69
	Aug	29.57	34.84	0.00	0.000		118%	118%	5.27
	Sep	30.39	35.06	0.00	0.000		115%	115%	4.67
	Oct	30.78	35.18	0.00	0.000		114%	114%	4.40
	Nov	30.43	35.23	0.00	0.000		116%	116%	4.80
	Dec	30.42	35.30	0.00	0.000		116%	116%	4.88
2022	Jan	29.21	35.68	0.00	0.000		122%	122%	6.47
	Feb	29.58	35.76	0.00	0.000		121%	121%	6.18
	Mar	29.89	35.83	0.00	0.000		120%	120%	5.94
	Apr	30.55	35.97	0.00	0.000		118%	118%	5.42
	May	30.67	36.00	0.00	0.000		117%	117%	5.33
	Jun	30.56	35.97	0.00	0.000		118%	118%	5.42
	Jul	29.10	35.66	0.00	0.000		123%	123%	6.56
	Aug	29.61	35.77	0.00	0.000		121%	121%	6.16
	Sep	30.76	36.02	0.00	0.000		117%	117%	5.26
	Oct	31.43	36.16	0.00	0.000		115%	115%	4.73
	Nov	32.05	36.22	0.00	0.000		113%	113%	4.17
	Dec	32.39	36.30	0.00	0.000		112%	112%	3.91
2023	Jan	31.54	35.68	0.00	0.000		113%	113%	4.14
	Feb	31.94	35.76	0.00	0.000		112%	112%	3.82
	Mar	32.27	35.83	0.00	0.000		111%	111%	3.55
	Apr	32.99	35.97	0.00	0.000		109%	109%	2.98
	May	33.12	36.00	0.00	0.000		109%	109%	2.88
	Jun	33.00	35.97	0.00	0.000		109%	109%	2.98
	Jul	31.42	35.66	0.00	0.000		113%	113%	4.23
	Aug	31.97	35.77	0.00	0.000		112%	112%	3.79
	Sep	33.22	36.02	0.00	0.000		108%	108%	2.80
	Oct	33.94	36.16	0.00	0.000		107%	107%	2.23
	Nov	34.61	36.22	0.00	0.000		105%	105%	1.61
	Dec	34.97	36.30	0.00	0.000		104%	104%	1.33
2024	Jan	34.26	29.30	0.00	10.000		86%	115%	5.04
	Feb	34.70	29.30	0.00	10.000		84%	113%	4.60
	Mar	35.05	29.30	0.00	10.000		84%	112%	4.25
	Apr	35.83	29.30	0.00	10.000		82%	110%	3.47
	May	35.97	29.30	0.00	10.000		81%	109%	3.33
	Jun	35.84	29.30	0.00	10.000		82%	110%	3.46
	Jul	34.13	29.30	0.00	10.000		86%	115%	5.17
	Aug	34.73	29.30	0.00	10.000		84%	113%	4.57
	Sep	36.08	29.30	0.00	10.000		81%	109%	3.22

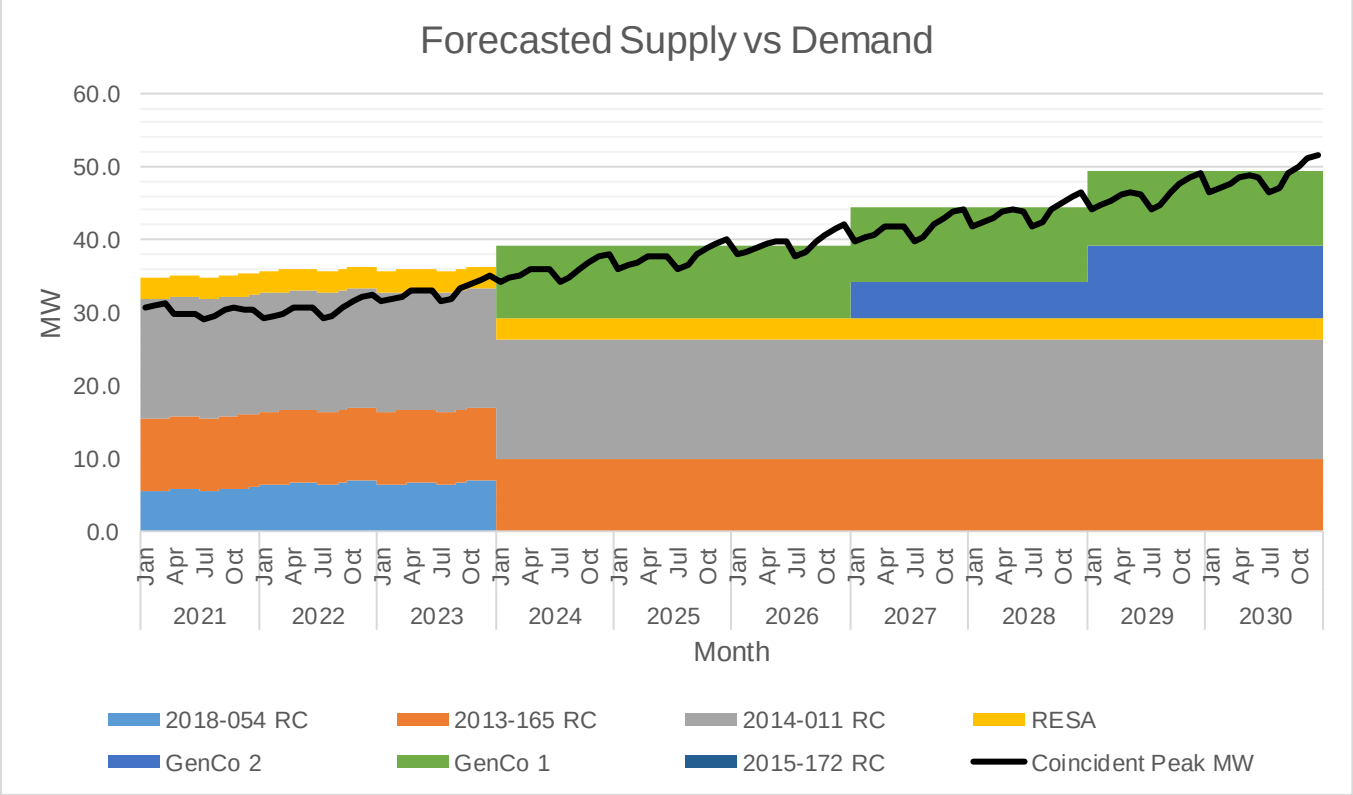
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Oct	36.86	29.30	0.00	10.000		79%	107%	2.44
	Nov	37.59	29.30	0.00	10.000		78%	105%	1.71
	Dec	37.99	29.30	0.00	10.000		77%	103%	1.31
2025	Jan	36.00	29.30	0.00	10.000		81%	109%	3.30
	Feb	36.46	29.30	0.00	10.000		80%	108%	2.84
	Mar	36.83	29.30	0.00	10.000		80%	107%	2.47
	Apr	37.65	29.30	0.00	10.000		78%	104%	1.65
	May	37.79	29.30	0.00	10.000		78%	104%	1.51
	Jun	37.66	29.30	0.00	10.000		78%	104%	1.64
	Jul	35.86	29.30	0.00	10.000		82%	110%	3.44
	Aug	36.49	29.30	0.00	10.000		80%	108%	2.81
	Sep	37.91	29.30	0.00	10.000		77%	104%	1.39
	Oct	38.73	29.30	0.00	10.000		76%	101%	0.57
	Nov	39.50	29.30	0.00	10.000		74%	100%	-0.20
	Dec	39.91	29.30	0.00	10.000		73%	98%	-0.61
2026	Jan	37.85	29.30	0.00	10.000		77%	104%	1.45
	Feb	38.33	29.30	0.00	10.000		76%	103%	0.97
	Mar	38.73	29.30	0.00	10.000		76%	101%	0.57
	Apr	39.59	29.30	0.00	10.000		74%	99%	-0.29
	May	39.74	29.30	0.00	10.000		74%	99%	-0.44
	Jun	39.60	29.30	0.00	10.000		74%	99%	-0.30
	Jul	37.71	29.30	0.00	10.000		78%	104%	1.59
	Aug	38.37	29.30	0.00	10.000		76%	102%	0.93
	Sep	39.86	29.30	0.00	10.000		74%	99%	-0.56
	Oct	40.73	29.30	0.00	10.000		72%	96%	-1.43
	Nov	41.53	29.30	0.00	10.000		71%	95%	-2.23
	Dec	41.97	29.30	0.00	10.000		70%	94%	-2.67
2027	Jan	39.83	29.30	0.00	15.000		74%	111%	4.47
	Feb	40.34	29.30	0.00	15.000		73%	110%	3.96
	Mar	40.75	29.30	0.00	15.000		72%	109%	3.55
	Apr	41.66	29.30	0.00	15.000		70%	106%	2.64
	May	41.82	29.30	0.00	15.000		70%	106%	2.48
	Jun	41.67	29.30	0.00	15.000		70%	106%	2.63
	Jul	39.68	29.30	0.00	15.000		74%	112%	4.62
	Aug	40.37	29.30	0.00	15.000		73%	110%	3.93
	Sep	41.95	29.30	0.00	15.000		70%	106%	2.35
	Oct	42.85	29.30	0.00	15.000		68%	103%	1.45
	Nov	43.70	29.30	0.00	15.000		67%	101%	0.60
	Dec	44.16	29.30	0.00	15.000		66%	100%	0.14
2028	Jan	41.93	29.30	0.00	15.000		70%	106%	2.37
	Feb	42.46	29.30	0.00	15.000		69%	104%	1.84
	Mar	42.90	29.30	0.00	15.000		68%	103%	1.40
	Apr	43.85	29.30	0.00	15.000		67%	101%	0.45
	May	44.02	29.30	0.00	15.000		67%	101%	0.28
	Jun	43.86	29.30	0.00	15.000		67%	101%	0.44
	Jul	41.77	29.30	0.00	15.000		70%	106%	2.53
	Aug	42.50	29.30	0.00	15.000		69%	104%	1.80
	Sep	44.16	29.30	0.00	15.000		66%	100%	0.14

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Oct	45.11	29.30	0.00	15.000		65%	98%	-0.81
	Nov	46.01	29.30	0.00	15.000		64%	96%	-1.71
	Dec	46.49	29.30	0.00	15.000		63%	95%	-2.19
2029	Jan	44.15	29.30	0.00	20.000		66%	112%	5.15
	Feb	44.72	29.30	0.00	20.000		66%	110%	4.58
	Mar	45.18	29.30	0.00	20.000		65%	109%	4.12
	Apr	46.18	29.30	0.00	20.000		63%	107%	3.12
	May	46.36	29.30	0.00	20.000		63%	106%	2.94
	Jun	46.19	29.30	0.00	20.000		63%	107%	3.11
	Jul	43.98	29.30	0.00	20.000		67%	112%	5.32
	Aug	44.76	29.30	0.00	20.000		65%	110%	4.54
	Sep	46.50	29.30	0.00	20.000		63%	106%	2.80
	Oct	47.51	29.30	0.00	20.000		62%	104%	1.79
	Nov	48.45	29.30	0.00	20.000		60%	102%	0.85
	Dec	48.96	29.30	0.00	20.000		60%	101%	0.34
2030	Jan	46.50	29.30	0.00	20.000		63%	106%	2.80
	Feb	47.10	29.30	0.00	20.000		62%	105%	2.20
	Mar	47.58	29.30	0.00	20.000		62%	104%	1.72
	Apr	48.64	29.30	0.00	20.000		60%	101%	0.66
	May	48.82	29.30	0.00	20.000		60%	101%	0.48
	Jun	48.65	29.30	0.00	20.000		60%	101%	0.65
	Jul	46.33	29.30	0.00	20.000		63%	106%	2.97
	Aug	47.14	29.30	0.00	20.000		62%	105%	2.16
	Sep	48.97	29.30	0.00	20.000		60%	101%	0.33
	Oct	50.04	29.30	0.00	20.000		59%	99%	-0.74
	Nov	51.02	29.30	0.00	20.000		57%	97%	-1.72
	Dec	51.56	29.30	0.00	20.000		57%	96%	-2.26

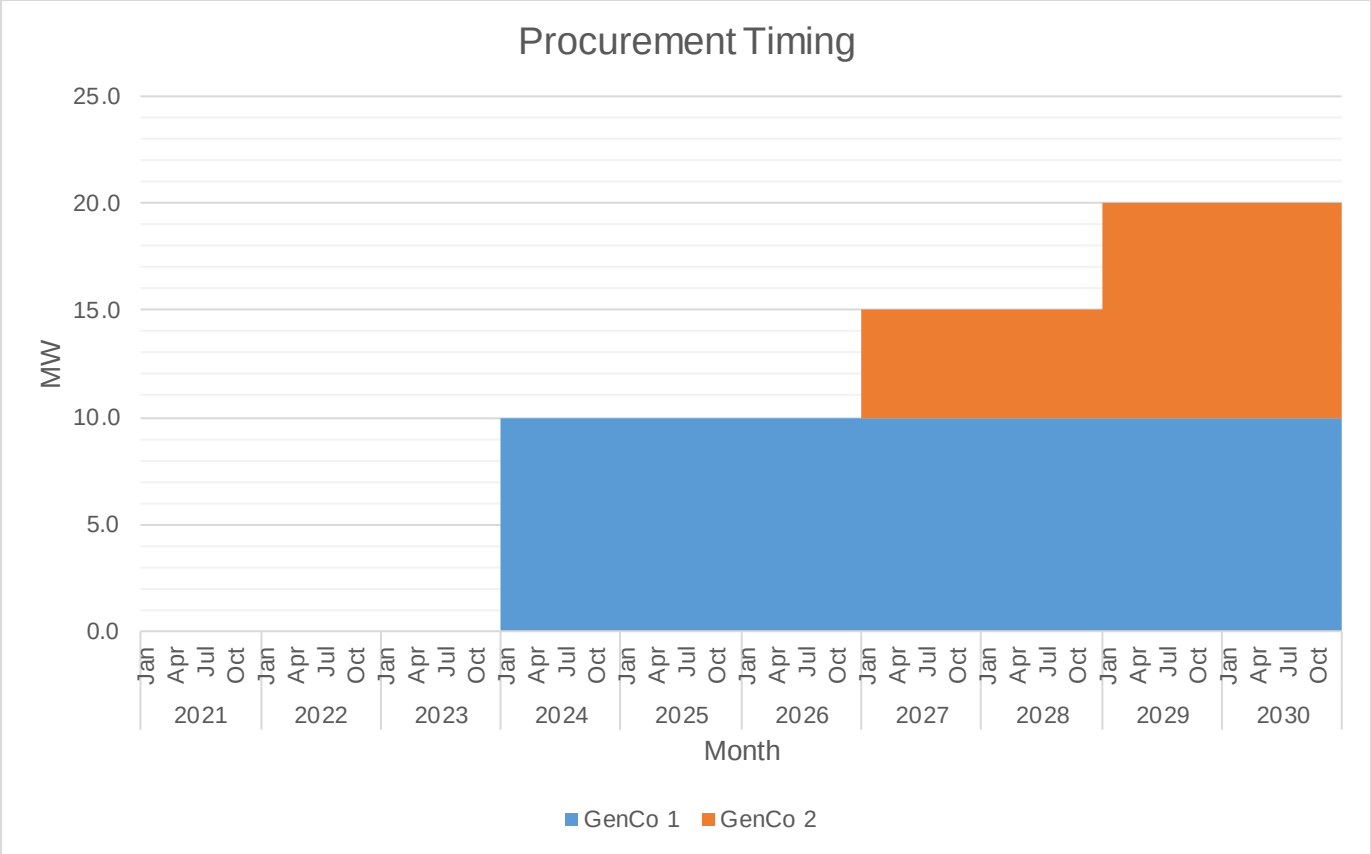
The Peak Demand was forecasted using Regression Method and was assumed to occur on the month of March due to entry of summer. Monthly Peak Demand is at its lowest on the month of July and August due to cold rainy season. In general, Peak Demand is expected to grow at a rate of 6.15% annually.



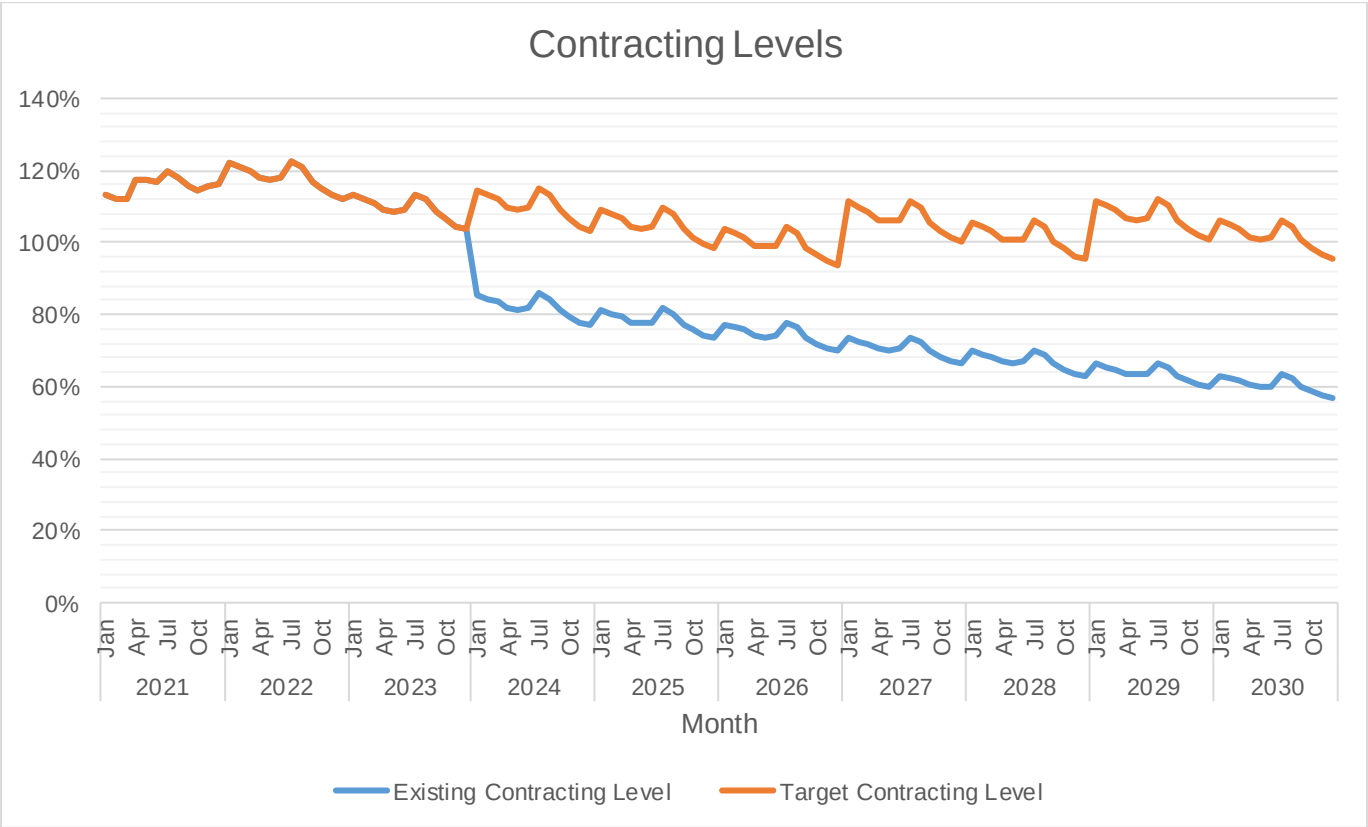
The available supply is generally above the Peak Demand. This is because of the contact with PSALM was extended until 2023 and the RESA from HEDCOR adds up specially during the rainy season.



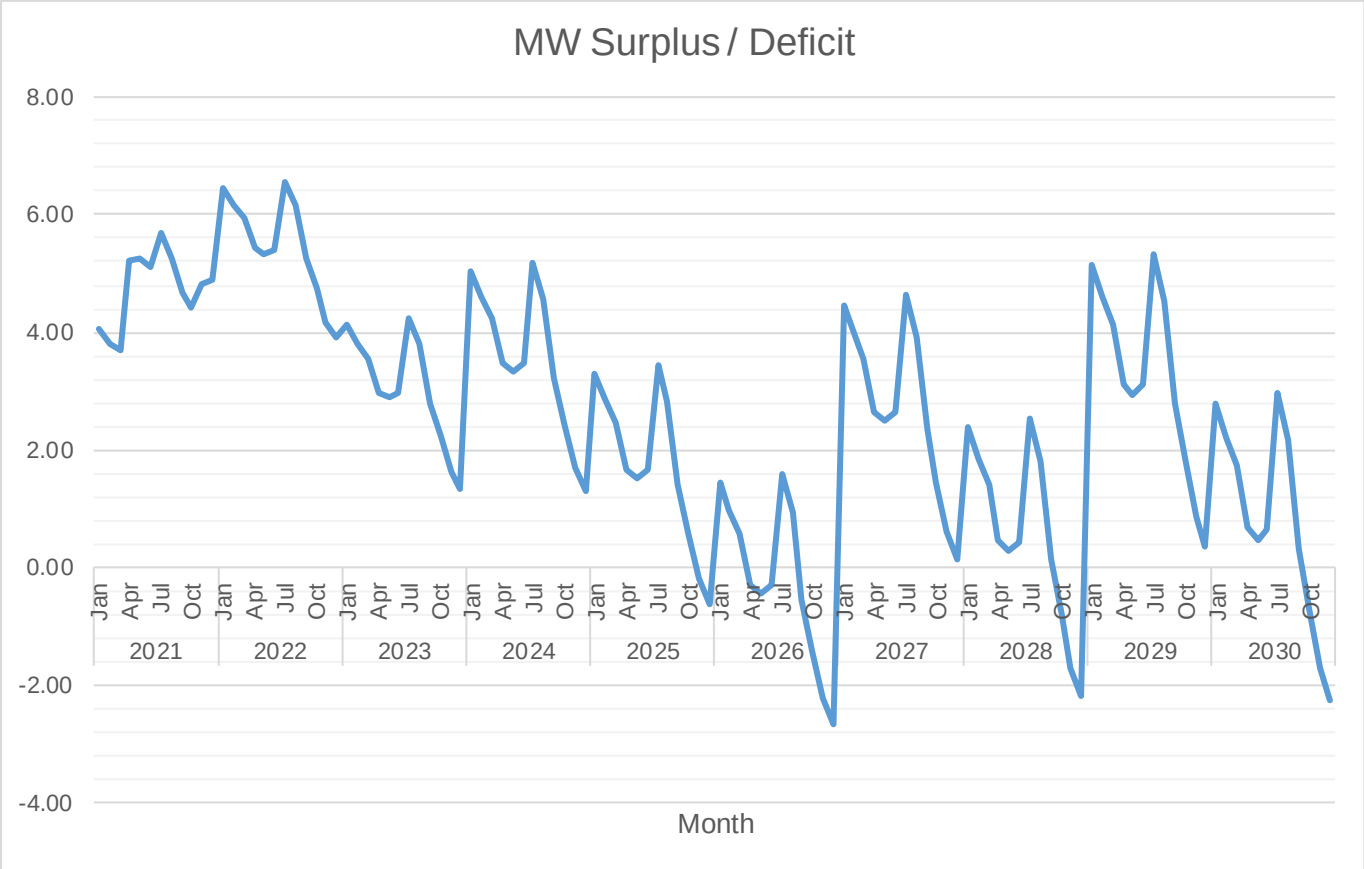
Of the available supply, the largest is 16.3 MW from GNPK. This is followed by 10 MW from TSI.



The first wave of supply procurement will be for 10 MW planned to be available by the month of January 2024. This is also in compliance to the Renewable Portfolio Standard requirements. Another 5MW power supply will be procured to cater the base load and it will be available by the month of January 2027. This will be followed by another 5MW by 2029.



Currently, there is over-contracting by 13% in average. The highest target contracting level is 117% which is expected to occur on 2021. The lowest target contracting level is 99% which is expected to occur on 2028.



Currently, there is over-contracting by 17% in average. The highest target contracting level is 117% which is expected to occur on 2022. The lowest target contracting level is 99% which is expected to occur on 2028.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	21,679	11,873	2,043	35.81%	14.68%
	Feb	21,748	11,113	2,586	37.01%	18.88%
	Mar	21,184	12,306	1,132	36.56%	8.43%
	Apr	22,064	12,134	2,219	34.95%	15.46%
	May	21,884	12,467	2,024	33.78%	13.96%
	Jun	22,028	11,716	2,443	35.72%	17.25%
	Jul	21,416	11,667	1,849	36.89%	13.68%
	Aug	21,794	12,025	1,819	36.47%	13.14%
	Sep	21,959	12,424	2,533	31.89%	16.93%
	Oct	22,167	12,649	2,401	32.10%	15.96%
	Nov	22,449	12,349	2,850	32.29%	18.75%
	Dec	22,553	13,054	2,061	32.98%	13.64%
2022	Jan	22,551	12,571	1,692	36.75%	11.86%
	Feb	22,606	11,766	2,142	38.48%	15.40%
	Mar	22,035	13,035	938	36.59%	6.71%
	Apr	22,962	12,854	1,838	36.02%	12.51%
	May	22,773	13,206	1,676	34.65%	11.26%
	Jun	22,914	12,409	2,023	37.02%	14.02%
	Jul	22,274	12,359	1,531	37.64%	11.02%
	Aug	22,680	12,738	1,506	37.19%	10.58%
	Sep	22,871	13,158	2,097	33.30%	13.75%

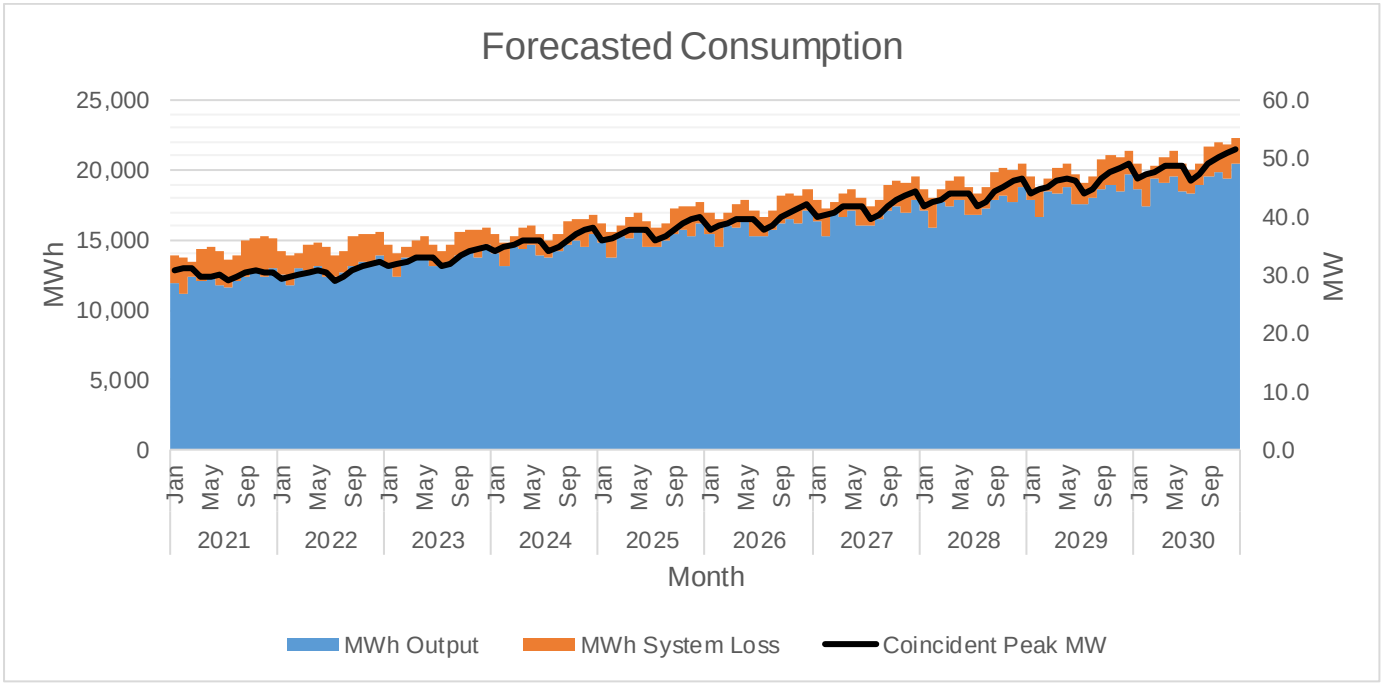
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Oct	23,082	13,394	1,988	33.36%	12.93%
	Nov	23,394	13,076	2,360	34.02%	15.29%
	Dec	23,495	13,828	1,707	33.88%	10.99%
2023	Jan	22,929	13,283	1,324	36.30%	9.06%
	Feb	22,978	12,432	1,676	38.61%	11.88%
	Mar	22,412	13,777	734	35.25%	5.06%
	Apr	23,350	13,587	1,438	35.65%	9.57%
	May	23,161	13,958	1,311	34.08%	8.59%
	Jun	23,297	13,115	1,583	36.91%	10.77%
	Jul	22,650	13,063	1,198	37.04%	8.40%
	Aug	23,064	13,463	1,179	36.52%	8.05%
	Sep	23,257	13,905	1,641	33.15%	10.55%
	Oct	23,482	14,153	1,556	33.10%	9.90%
	Nov	23,802	13,816	1,847	34.19%	11.79%
	Dec	23,913	14,615	1,335	33.30%	8.37%
2024	Jan	22,884	14,007	1,389	32.72%	9.02%
	Feb	22,865	13,110	1,758	34.98%	11.82%
	Mar	22,685	14,532	770	32.55%	5.03%
	Apr	23,123	14,333	1,508	31.49%	9.52%
	May	23,058	14,723	1,375	30.19%	8.54%
	Jun	23,058	13,833	1,661	32.80%	10.72%
	Jul	22,751	13,779	1,256	33.91%	8.36%
	Aug	22,970	14,201	1,237	32.79%	8.01%
	Sep	23,006	14,666	1,721	28.77%	10.50%
	Oct	23,291	14,926	1,632	28.91%	9.86%
	Nov	23,438	14,570	1,937	29.57%	11.74%
	Dec	23,655	15,416	1,401	28.91%	8.33%
2025	Jan	23,222	14,745	1,453	30.25%	8.97%
	Feb	23,185	13,800	1,839	32.55%	11.76%
	Mar	23,037	15,300	805	30.09%	5.00%
	Apr	23,463	15,091	1,578	28.96%	9.47%
	May	23,404	15,501	1,439	27.62%	8.49%
	Jun	23,386	14,564	1,737	30.29%	10.66%
	Jul	23,092	14,507	1,315	31.48%	8.31%
	Aug	23,314	14,952	1,294	30.32%	7.96%
	Sep	23,353	15,440	1,801	26.17%	10.45%
	Oct	23,648	15,713	1,708	26.33%	9.80%
	Nov	23,800	15,338	2,027	27.04%	11.67%
	Dec	24,028	16,231	1,466	26.35%	8.28%
2026	Jan	23,617	15,497	1,516	27.96%	8.91%
	Feb	23,573	14,504	1,919	30.33%	11.69%
	Mar	23,429	16,081	840	27.77%	4.97%
	Apr	23,867	15,862	1,647	26.64%	9.41%
	May	23,807	16,293	1,502	25.26%	8.44%
	Jun	23,784	15,308	1,813	28.01%	10.59%
	Jul	23,482	15,248	1,372	29.22%	8.25%
	Aug	23,715	15,715	1,350	28.04%	7.91%
	Sep	23,756	16,227	1,880	23.78%	10.38%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Oct	24,065	16,514	1,782	23.97%	9.74%
	Nov	24,224	16,120	2,115	24.72%	11.60%
	Dec	24,464	17,060	1,530	24.01%	8.23%
2027	Jan	25,135	16,262	1,579	29.02%	8.85%
	Feb	25,089	15,220	1,998	31.37%	11.61%
	Mar	24,937	16,876	875	28.82%	4.93%
	Apr	25,397	16,646	1,715	27.70%	9.34%
	May	25,334	17,098	1,564	26.34%	8.38%
	Jun	25,309	16,064	1,888	29.07%	10.52%
	Jul	24,992	16,001	1,428	30.26%	8.20%
	Aug	25,238	16,492	1,406	29.09%	7.85%
	Sep	25,282	17,029	1,957	24.91%	10.31%
	Oct	25,606	17,330	1,856	25.07%	9.67%
	Nov	25,772	16,916	2,202	25.82%	11.52%
	Dec	26,024	17,904	1,593	25.08%	8.17%
2028	Jan	25,562	17,040	1,640	26.92%	8.78%
	Feb	25,513	15,948	2,077	29.35%	11.52%
	Mar	25,353	17,684	909	26.66%	4.89%
	Apr	25,836	17,443	1,782	25.59%	9.27%
	May	25,769	17,916	1,625	24.17%	8.31%
	Jun	25,742	16,833	1,962	26.99%	10.44%
	Jul	25,410	16,767	1,484	28.17%	8.13%
	Aug	25,670	17,281	1,461	26.99%	7.79%
	Sep	25,717	17,844	2,034	22.71%	10.23%
	Oct	26,054	18,159	1,928	22.90%	9.60%
	Nov	26,228	17,725	2,288	23.69%	11.43%
	Dec	26,492	18,761	1,655	22.94%	8.11%
2029	Jan	27,104	17,832	1,701	27.93%	8.71%
	Feb	27,052	16,690	2,154	30.34%	11.43%
	Mar	26,885	18,505	943	27.66%	4.85%
	Apr	27,391	18,253	1,848	26.61%	9.19%
	May	27,321	18,748	1,685	25.21%	8.25%
	Jun	27,291	17,614	2,035	28.00%	10.35%
	Jul	26,944	17,545	1,539	29.17%	8.07%
	Aug	27,217	18,083	1,515	27.99%	7.73%
	Sep	27,268	18,672	2,109	23.79%	10.15%
	Oct	27,620	19,003	2,000	23.96%	9.52%
	Nov	27,801	18,549	2,373	24.74%	11.34%
	Dec	28,079	19,632	1,716	23.97%	8.04%
2030	Jan	27,520	18,638	1,761	25.88%	8.63%
	Feb	27,465	17,444	2,230	28.37%	11.33%
	Mar	27,288	19,340	976	25.55%	4.81%
	Apr	27,817	19,076	1,913	24.55%	9.12%
	May	27,744	19,593	1,745	23.09%	8.18%
	Jun	27,712	18,408	2,106	25.97%	10.27%
	Jul	27,349	18,336	1,594	27.13%	8.00%
	Aug	27,638	18,898	1,568	25.95%	7.66%
	Sep	27,691	19,515	2,183	21.64%	10.06%

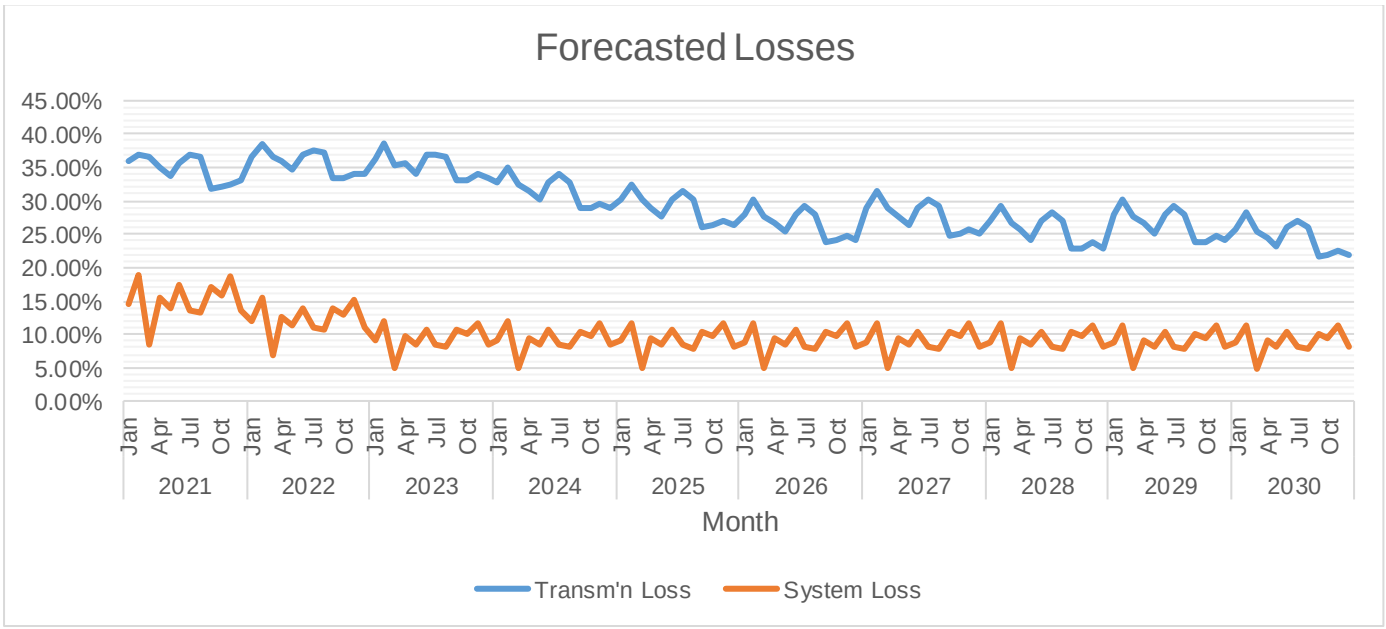
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Oct	28,056	19,861	2,070	21.83%	9.44%
	Nov	28,244	19,386	2,457	22.66%	11.25%
	Dec	28,533	20,517	1,777	21.87%	7.97%

MWh Offtake was forecasted using Regression. The assumed load factor is 56%.

System Loss was calculated through a Load Flow Study conducted on 2020 using Synergee software. Based on the same study, the Distribution System adequately convey electricity to customers with all the proposed projects implemented to address the system deficiency.



MWh Output was expected to grow at a rate of 3.9% annually.



Transmission Loss is expected to range from 3% to 5% while System Loss is expected to range from 13% to 16%.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2018-054 RC	Base	Power Sector Assets and Liabilities Management Corporation	2.87	33,349	12/26/2021	12/25/2023
2013-165 RC	Base	Therma South, Inc.	4.00	35,040	12/26/2015	12/25/2040
2014-011 RC	Base	GN Power Mariveles Coal Plant Ltd.	1.00	8,760	7/26/2018	7/25/2043
RESA	Base	Hedcor, Inc.	8.15	107,091	7/26/2018	7/25/2038

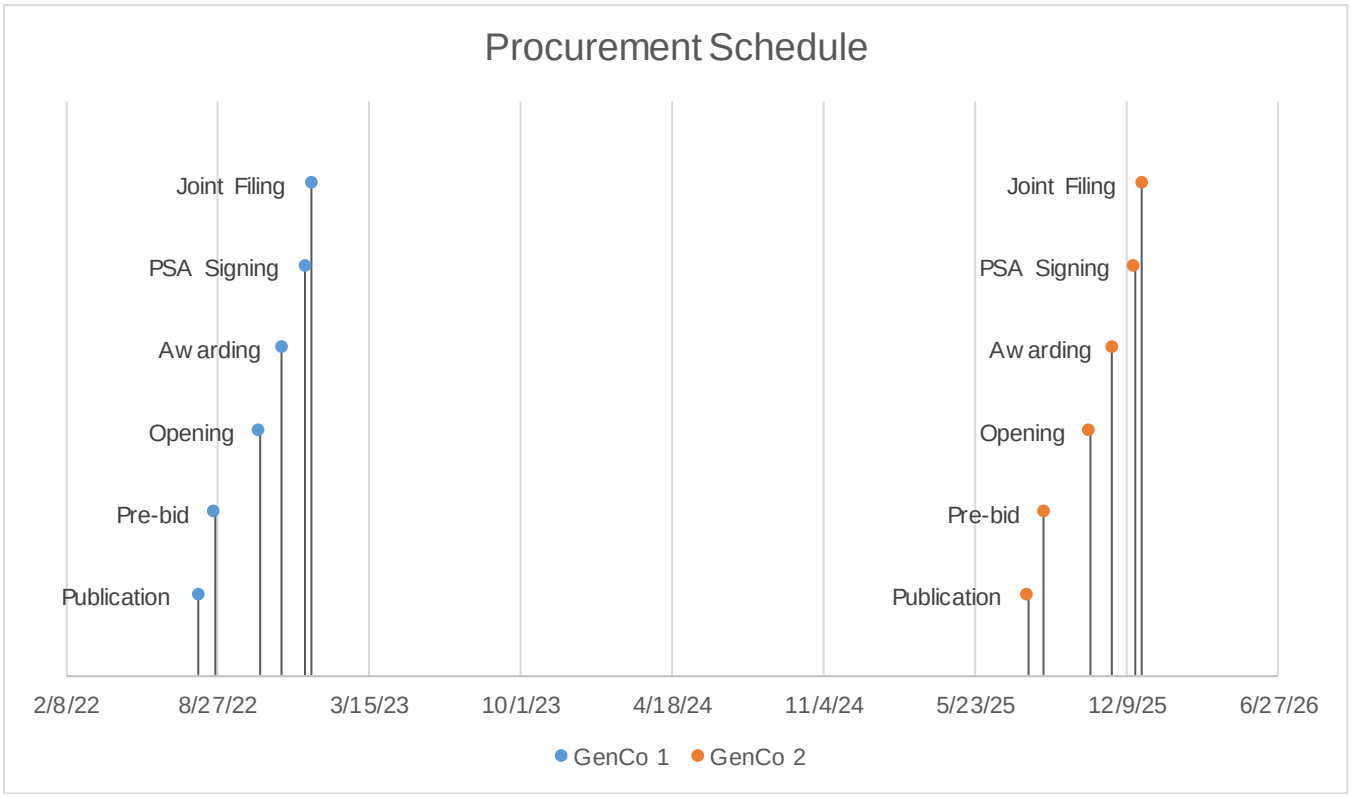
The **PSA with GN Power Kauswagan filed with ERC under Case No. 2014-011 RC** was procured through CSP. It was selected to provide for base requirements due to its type of technology. Historically, the utilization of the PSA is 100%. The actual billed overall monthly charge under the PSA ranged from 5 P/kWh to 6 P/KWHr in the same period.

For the **PSALM CSEE**, ZAMSURECO II will comply with the DOE's issuance of Certificate of Exemption from the conduct of CSP for the renewal of the CSEE with PSALM Corp under section 2 of the DOE DC No. 2018-02-0003.

The **PSA with Therma South Inc. was filled with ERC under Case No. 2013-165 RC** was procured through CSP. It was selected to provide for the short fall of supply during the grid deficiency situation in 2013. Historically, the utilization of the PSA is 100%. The actual billed overall monthly charge under the PSA ranged from 5 P/kWh to 7 P/KWHr in the same period.

The **contract with HEDCOR** was entered through a Renewable Energy Supply Agreement (RESA). It was selected to augment the supply deficiency brought about by the delay of the commissioning of GNPK and the intermittency of TSI during the early stage of the commercial operation of the power plant. This agreement will cease to take effect upon the commercial operation of the WESM in Mindanao.

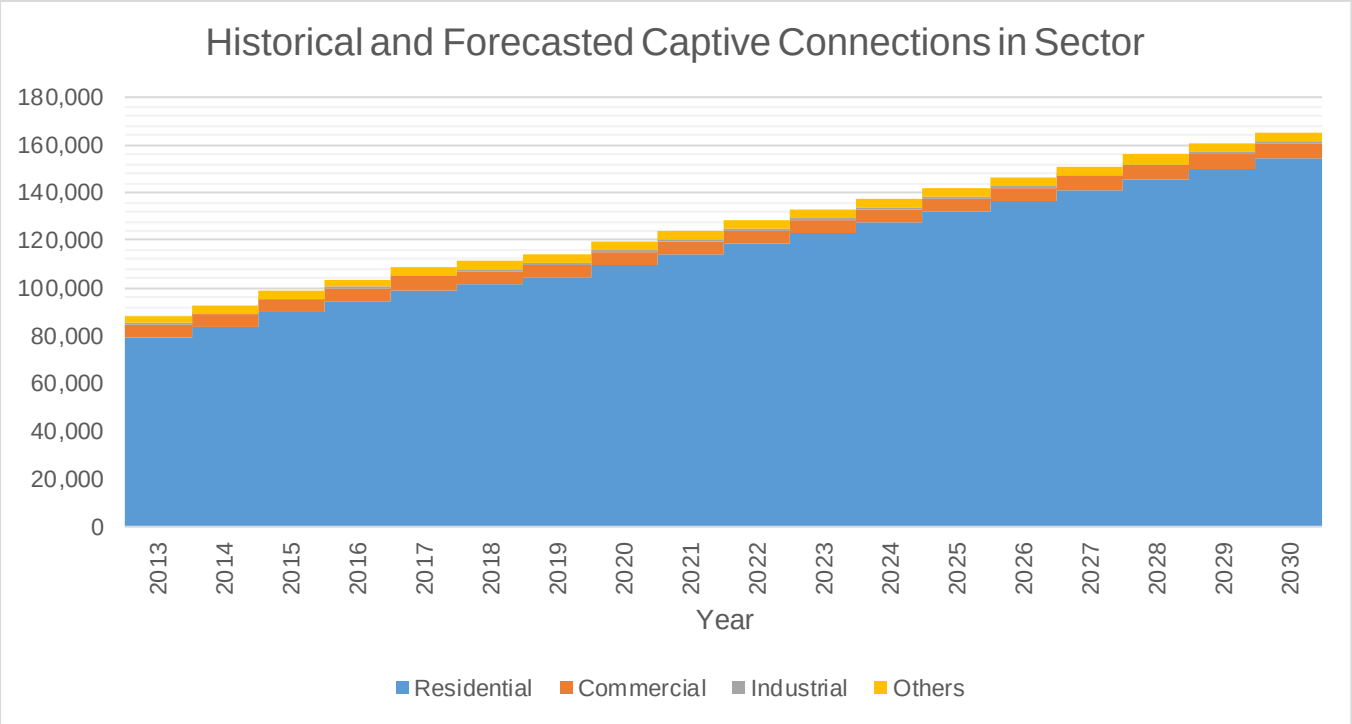
	GenCo 1	GenCo 2
Type	Intermediate/Peak	Base
Minimum MW	10.00	5.00
Minimum MWh/yr	43,800	21,900
PSA Start	1/1/2024	1/1/2027
PSA End	12/31/2044	12/31/2047
Publication	8/1/2022	8/1/2025
Pre-bid	8/22/2022	8/22/2025
Opening	10/21/2022	10/21/2025
Awarding	11/20/2022	11/20/2025
PSA Signing	12/20/2022	12/20/2025
Joint Filing	12/29/2022	12/29/2025



January 2024, the first publication or launch of CSP will be on August 2028. Joint filing is planned on December 2022, or 150 days later, in accordance with DOE's 2018 CSP Policy.

The base supply of another 5MW is planned for the PSA to be in effect on 2027 and corresponding CSP schedule will be followed.

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 91.7% of the total consumers.

There are also households which are part of the franchise area of ZAMSURECO II Brgy. Mamawan, Baliguian, Zamboanga del Norte, but being served by our neighboring DU which is ZANECO because of its proximity to the existing facility, made it more feasible and viable to connect. The meter reading, billing and collection are being done by ZANECO.

There are no agreements approved by the ERC regarding this arrangement by ZAMSURECO II and ZANECO but for the purpose of electrifying the consumers, an internal agreement was made. Similarly, ZANECO also has an area part of its franchise that the reading, billing and collection was undertaken by ZAMSURECO which is the Brgy. Marcelo, Kalawit, Zamboanga del Norte.