Power Supply Procurement Plan
2024-2033

Zamboanga del Sur I Electric Cooperative, Inc.

(ZAMSURECO-I)

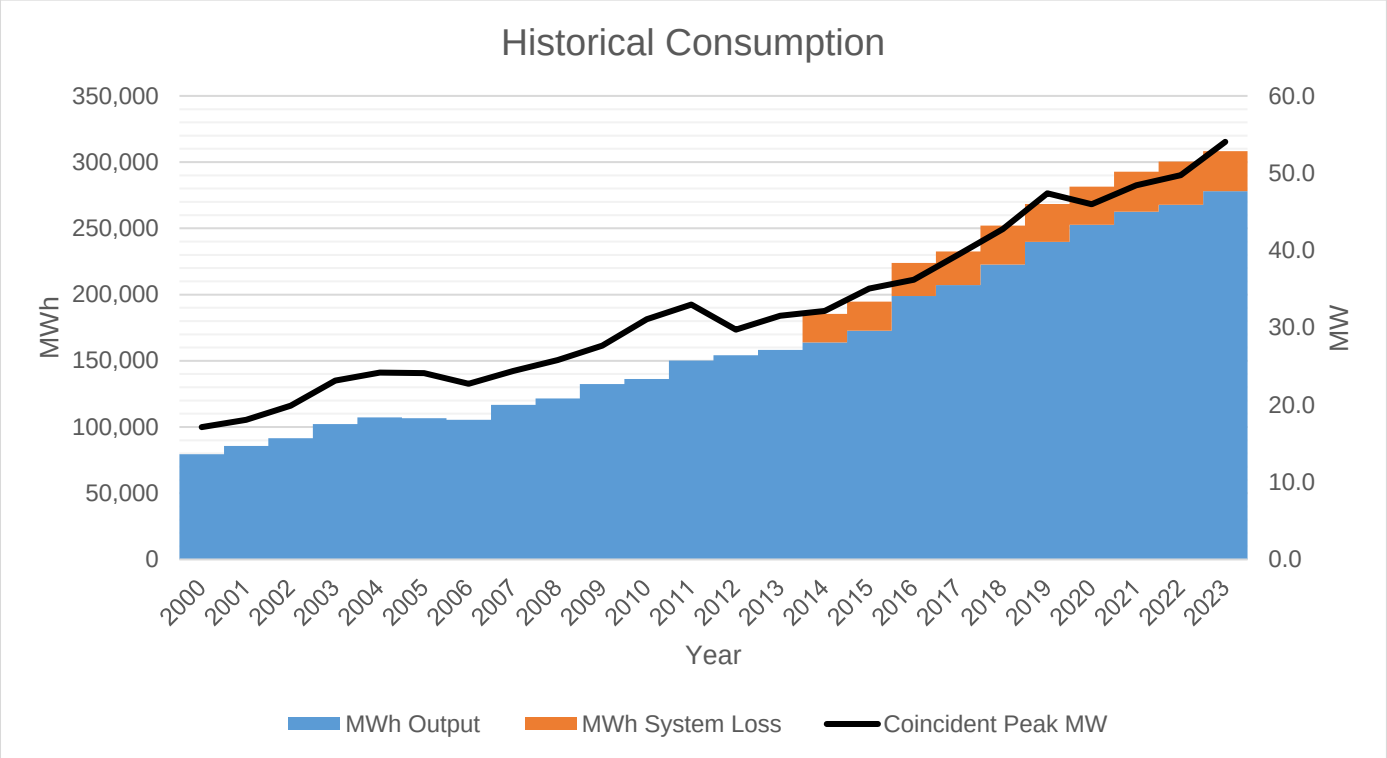
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	17.13	91,923	0	91,923	79,470	0	61%	-13.55%	0.00%	0.00%
2001	18.06	98,507	0	98,507	85,753	0	62%	-12.95%	0.00%	0.00%
2002	19.92	106,838	0	106,838	91,480	0	61%	-14.38%	0.00%	0.00%
2003	23.15	116,711	0	116,711	102,151	0	58%	-12.48%	0.00%	0.00%
2004	24.19	122,837	0	122,837	107,221	0	58%	-12.71%	0.00%	0.00%
2005	24.12	126,260	0	126,260	106,562	0	60%	-15.60%	0.00%	0.00%
2006	22.74	126,736	0	126,736	105,532	0	64%	-16.73%	0.00%	0.00%
2007	24.38	132,728	0	132,728	116,825	0	62%	-11.98%	0.00%	0.00%
2008	25.80	137,218	0	137,218	121,479	0	61%	-11.47%	0.00%	0.00%
2009	27.68	148,325	0	148,325	132,475	0	61%	-10.69%	0.00%	0.00%
2010	31.08	154,160	0	154,160	136,308	0	57%	-11.58%	0.00%	0.00%
2011	33.00	167,227	0	167,227	150,253	0	58%	-10.15%	0.00%	0.00%
2012	29.73	173,818	0	173,818	154,148	0	67%	-11.32%	0.00%	0.00%
2013	31.53	179,356	0	179,356	158,291	0	65%	-11.74%	0.00%	0.00%
2014	32.15	185,551	0	185,551	163,825	21,616	66%	-0.06%	0.00%	11.65%
2015	35.07	194,702	0	194,702	172,656	22,046	63%	0.00%	0.00%	11.32%
2016	36.22	223,836	0	223,836	198,855	24,981	71%	0.00%	0.00%	11.16%
2017	39.44	231,647	0	231,647	207,106	25,442	67%	0.39%	0.00%	10.98%
2018	42.76	253,011	0	253,011	222,766	29,377	68%	-0.34%	0.00%	11.61%
2019	47.39	273,581	0	273,581	239,737	28,654	66%	-1.90%	0.00%	10.47%
2020	45.96	288,361	0	281,458	252,624	28,834	70%	0.00%	2.39%	10.24%
2021	48.44	300,951	0	292,710	262,520	30,190	69%	0.00%	2.74%	10.31%
2022	49.73	310,632	0	300,481	267,748	32,733	69%	0.00%	3.27%	10.89%
2023	54.06	333,182	6,896	308,379	278,123	30,255	65%	0.00%	7.44%	9.81%

Peak Demand increased from 49.73 MW in 2022 to 54.06 MW in 2023 at a rate of 8.71% due to influx of number of investments coming in and considering that Pagadian City is the Regional Government Center of Region-IX. We expected that by year 2024 spot loads would come in such as commercial building like Robinsons, Gaisano Mall Molave, Gaisano Pagadian Phase 2 and Princeton Hotel among others.

2023	MWh (Input - Offtake)	Transmission Loss
Jan	-849	3.38%
Feb	-1,917	7.11%
Mar	-1,018	4.08%
Apr	-1,840	6.43%
May	-2,119	7.42%
Jun	-3,495	**12.08%**
Jul	-3,145	**11.40%**
Aug	-2,063	7.52%
Sep	-1,396	5.10%
Oct	-1,684	6.09%
Nov	-2,292	7.63%
Dec	-2,986	9.98%

The abrupt increase of transmission loss in the billing months of June and July 2023 can be attributed to ZAMSURECO-I's transactions in the WESM. During said months, the Cooperative's energy sold to WESM were significantly higher than the other months. This resulted in higher energy offtake, hence, higher transmission loss.



From year 2022 to year 2023, the MWh Output increased at a percent growth rate of 3.88%, while MWh System Loss decreased by 7.57%.

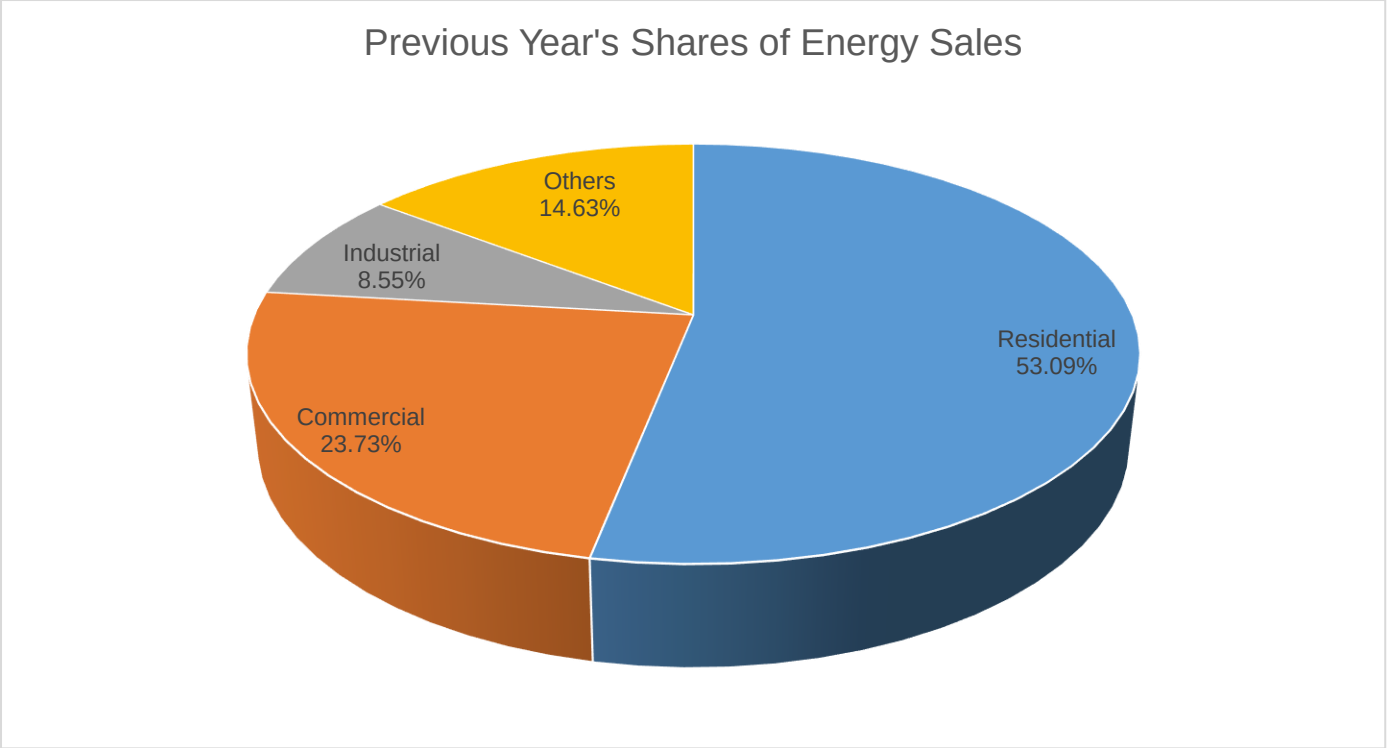
Historically, Transmission Loss ranged from 1.59% to 7.44% while System Loss ranged from 9.81% to 11.65%. Transmission Loss peaked at 7.44% on year 2023 because of exposure to WESM. System Loss peaked at 11.65% on year 2014 because of MWh Input is still equal to MWh Offtake.

Please note that transmission loss from year 2000 to 2019 was at 0% considering that the MWh Output and MWh Input are of same value. Currently, the NGCP Billing Determinant Energy (BDE) is used as the MWh Input, enabling the planners to compute the transmission loss.

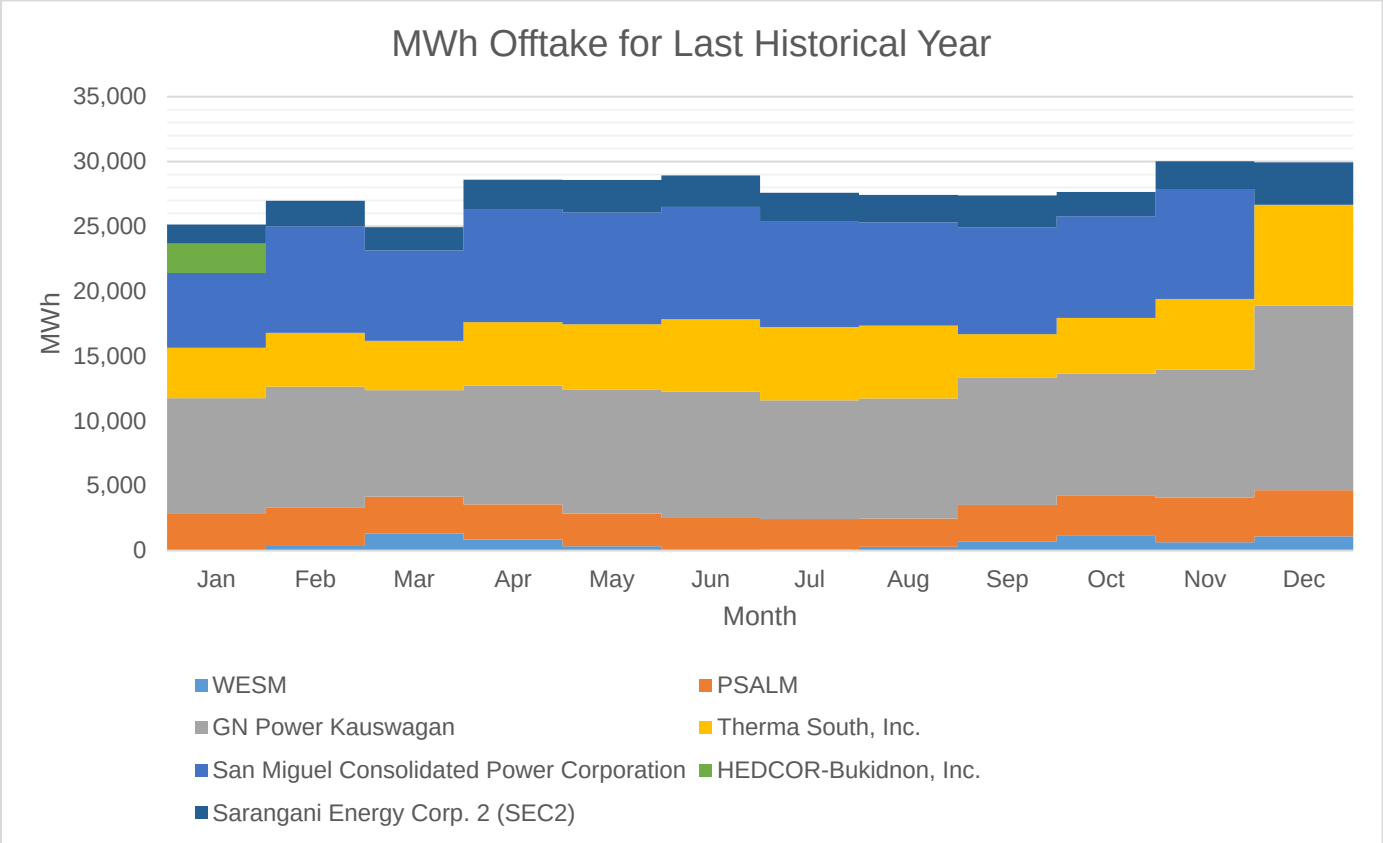
Notes:

1. In 2017, there is a minor deficit in power supply. The reason is that during that time, the power crisis in Mindanao Grid has not been fully solved yet. The crisis was effectively solved when the major power plant projects went into commercial operation in 2018 and onwards.

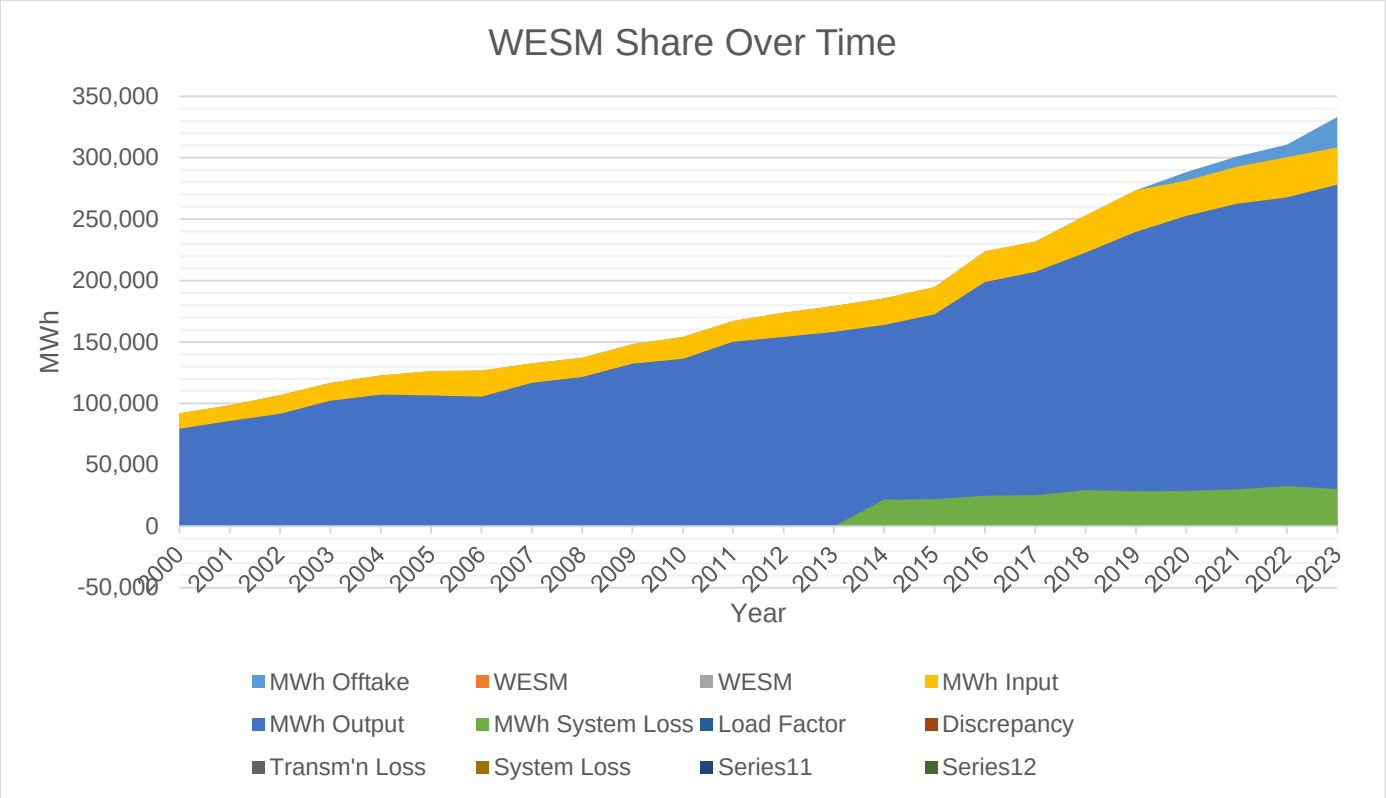
In 2000 to 2014, there is a seeming oversupply. However, there is no oversupply since during this period, ZAMSURECO-I has only one power supplier, which is the NPC. The excess energy is a result of subsequent revisions in the presentation/inputting of data.



Residential customers account for the bulk of energy sales at 53.09% due to the high number of connections. In contrast, Industrial customers accounted for only 8.55% of energy sales due to the low number of connections.

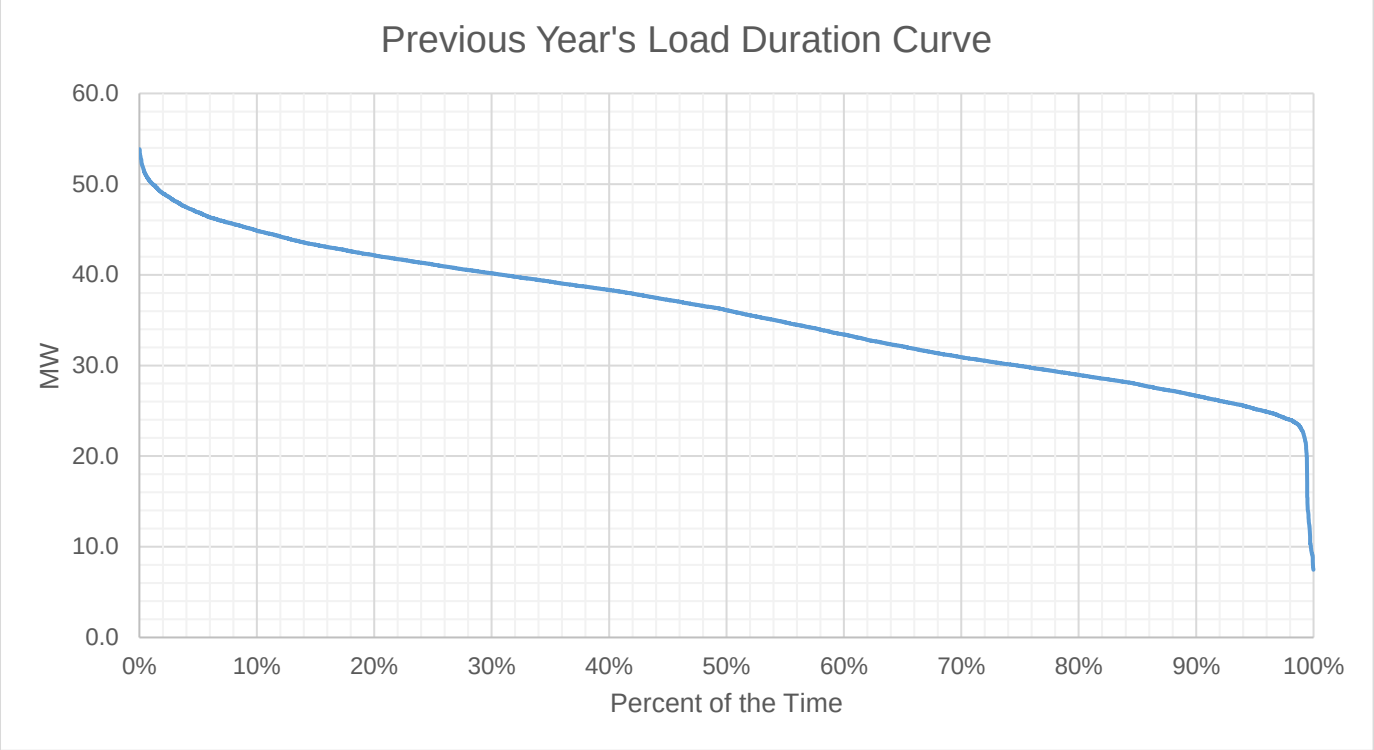


For 2023, the total MWh Offtake for the last historical year is lower than the quantity stipulated in the PSA. The PSA with GN Power Kauswagan accounts for the bulk of MWh Offtake considering that GNPK has the highest BCQ among the contracted IPPS. WESM commenced commercial operation in Mindanao on January 26, 2023.

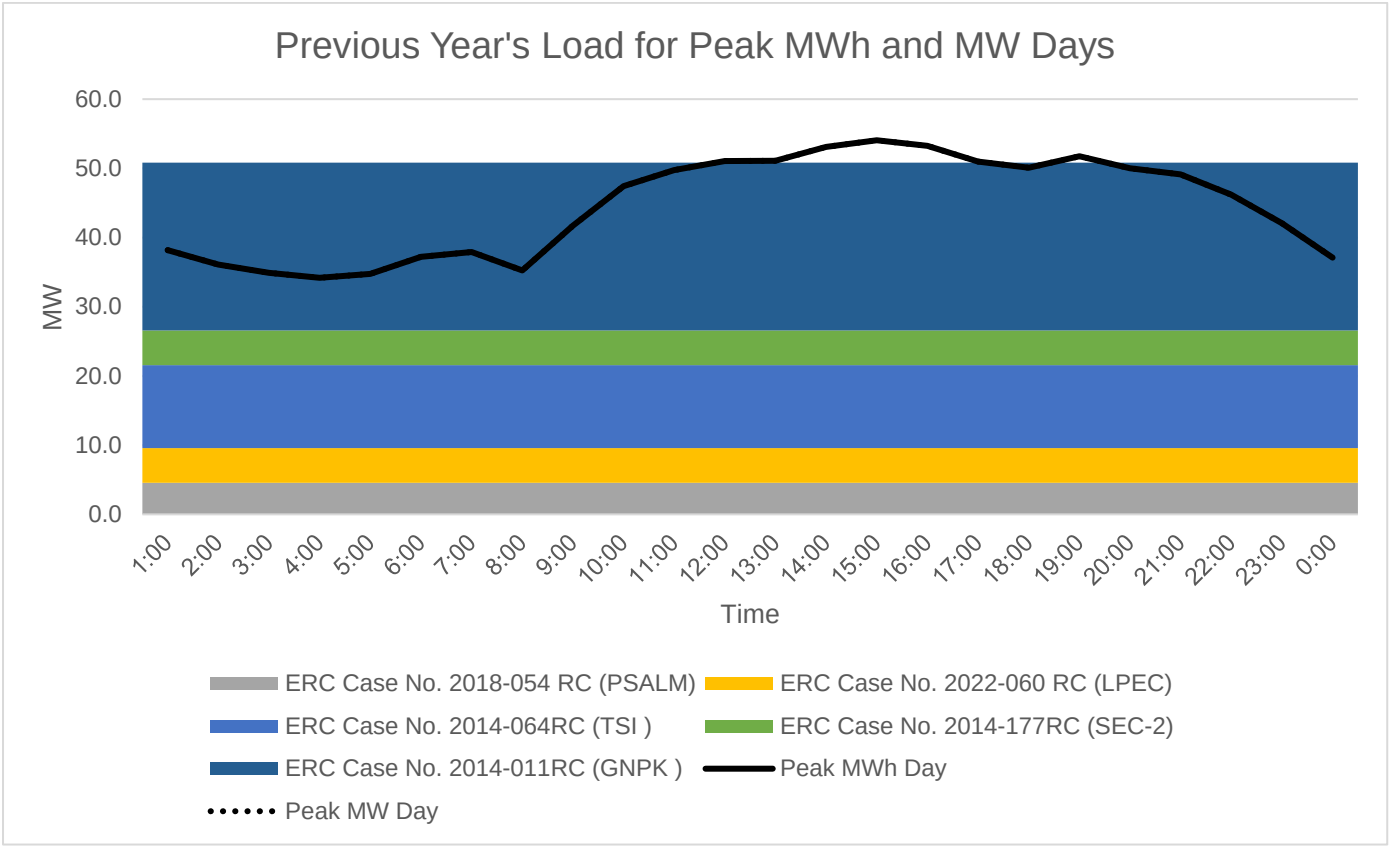


WESM Offtake increased from 347 MWh in the month February 2023 to 1,316 MWh in the month of March 2023 due to abrupt increase of system demand as compared to the previous month and an unplanned outage of one of our existing contracted IPPs (GNPK).

Previous Year's Load Profile

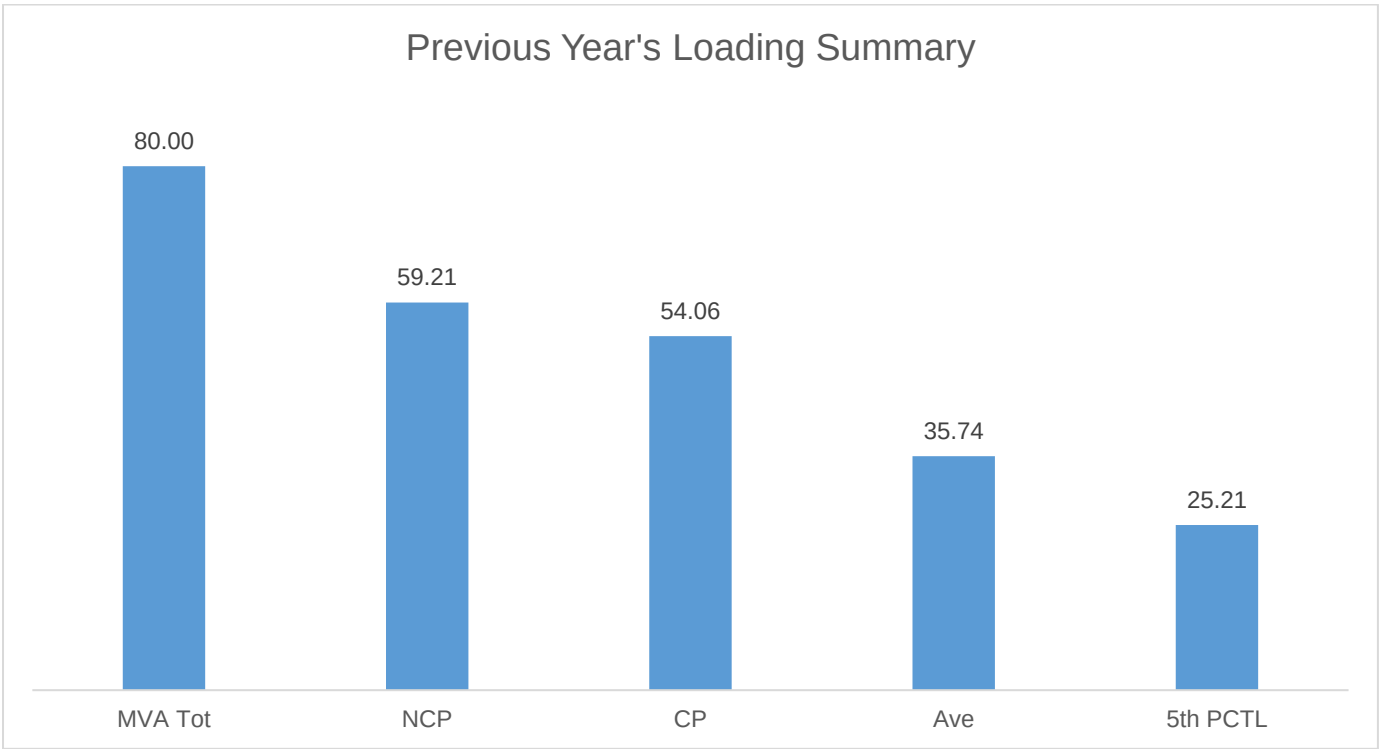


Based on the Load Duration Curve, the minimum was 23MW and the maximum load is 54.06 MW for the last historical year. The zero (0) MW is due to Scheduled Power Interruption carried out by NGCP.



Peak MW occurred in the month of December, the month of Christmas season. Peak daily MWh occurred on 3pm of December 14, 2023, which can probably be attributed to the hot/humid climate as well as celebrating of yuletide season throughout the entire franchise area.

As shown in the Load Curves, the available supply is lower than the Peak Demand that results to WESM purchases exposure during those periods.



The Non-coincident Peak Demand is 59.21 MW, which is around 66% of the total substation capacity of 80MVA at a power factor of 0.9. The load factor or the ratio between the Average Load of 35.74 MW and the Non-coincident Peak Demand is 60%. A safe estimate of the true minimum load is the fifth percentile load of 25.21 MW, which is 43% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW	% Loading	Remarks
Switch (M01)	5	3.798	76%	Above 70% loading
Balangasan (M04)	10	9.841	98%	Above 70% loading
San Miguel (M05)	10	6.910	69%	Within allowable
Culo (M07)	10	7.376	74%	Above 70% loading
San Jose (M08)	10	5.516	55%	Within allowable
Upper Bayao (M09)	5	4.016	80%	Above 70% loading
Unit-2 Tiguma (M10)	10	7.508	75%	Above 70% loading
Tikwas (M11)	10	4.222	42%	Within allowable
Unit-2 Sta. Maria (M12)	10	10.025	100%	At 100% loading

Based on the table above, the substation that loaded at above 70%, are Switch (M01), Balangasan (M04), Culo (M07), Upper Bayao (M09), Unit-2 Tiguma (M10) and Unit-2 Sta. Maria (M12). While San Miguel (M05), San Jose (M08) and Tikwas (M11) are within allowable percentage loading capacity.

As shown on the table above, it shows that the highest percent (%) loading for the year 2023 is the Unit-2 Sta. Maria (M12). The cause of this was due to continuous increase of demand considering that its load covers the city of Pagadian (the capital city of Zamboanga del Sur).

Procurement of Projects initiated by ZAMSURECO-I, which also includes in ZAMSURECO-I's CAPEX Program, for the solution of overloading problem of the substations are as follows;

- The loading problem of Switch (M01) and Culo (M07) Substation will be addressed by the establishment of 10MVA Power Substation at Barangay Panagaan, Mahayag, Zamboanga del Sur.

- The loading problem of Balangasan (M04) Substation will be solved by uprating the existing 10MVA Power Transformer into 20MVA Power Transformer which is currently ongoing.

- The overloading problem of Unit-2 Sta. Maria (M12) Substation, located at Brgy. Sta. Maria, Pagadian City, will be addressed upon restoration of Unit-1 Sta. Maria (M06) Substation which is currently undergoing Preventive Maintenance Schedule (PMS).

The loading problem of Upper Bayao (M09) and Unit-2 Tiguma (M10) Substation located at Brgy. Tiguma, Pagadian City, will be solved once the Unit-1 Tiguma (M02) Power Transformer will be placed back to service.

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
2024	Jan	49.70	50.82	0.00	0.000		102%	102%	1.12
	Feb	49.23	50.20	0.00	0.000		102%	102%	0.97
	Mar	53.26	50.62	0.00	0.000		95%	95%	-2.64
	Apr	54.22	49.87	0.00	0.000		92%	92%	-4.35
	May	54.77	49.72	8.00	0.000		91%	105%	2.95
	Jun	52.17	49.47	8.00	0.000		95%	110%	5.30
	Jul	50.26	49.67	8.00	0.000		99%	115%	7.41
	Aug	50.35	49.24	8.00	0.000		98%	114%	6.89
	Sep	50.71	50.50	8.00	0.000		100%	115%	7.79
	Oct	55.29	50.74	8.00	0.000		92%	106%	3.45
	Nov	57.50	50.92	8.00	0.000		89%	102%	1.42
	Dec	58.67	51.34	8.00	0.000		88%	101%	0.67
2025	Jan	52.58	50.82	8.00	0.000		97%	112%	6.23
	Feb	52.09	50.20	8.00	0.000		96%	112%	6.11
	Mar	56.35	50.62	8.00	0.000		90%	104%	2.27
	Apr	57.37	49.87	8.00	0.000		87%	101%	0.50
	May	57.94	49.72	0.00	8.000		86%	86%	-8.23
	Jun	55.19	49.47	0.00	8.000		90%	104%	2.28
	Jul	53.17	49.67	0.00	8.000		93%	108%	4.50
	Aug	53.27	49.24	0.00	8.000		92%	107%	3.97
	Sep	53.65	50.50	0.00	8.000		94%	109%	4.85
	Oct	58.50	50.74	0.00	8.000		87%	100%	0.24
	Nov	60.84	50.92	0.00	13.000		84%	105%	3.09
	Dec	62.07	51.34	0.00	13.000		83%	104%	2.27
2026	Jan	55.78	46.24	0.00	13.000		83%	106%	3.46
	Feb	55.26	46.24	0.00	13.000		84%	107%	3.98
	Mar	59.78	46.24	0.00	13.000		77%	99%	-0.54
	Apr	60.86	46.24	0.00	13.000		76%	97%	-1.62
	May	61.47	46.24	0.00	13.000		75%	96%	-2.23
	Jun	58.55	46.24	0.00	13.000		79%	101%	0.69
	Jul	56.40	46.24	0.00	13.000		82%	105%	2.84
	Aug	56.51	46.24	0.00	13.000		82%	105%	2.73
	Sep	56.91	46.24	0.00	13.000		81%	104%	2.33
	Oct	62.06	46.24	0.00	13.000		75%	95%	-2.82
	Nov	64.53	46.24	0.00	13.000		72%	92%	-5.29
	Dec	65.85	46.24	0.00	13.000		70%	90%	-6.61
2027	Jan	59.30	46.24	0.00	13.000		78%	100%	-0.06
	Feb	58.74	46.24	0.00	13.000		79%	101%	0.50
	Mar	63.54	46.24	0.00	13.000		73%	93%	-4.30
	Apr	64.69	46.24	0.00	13.000		71%	92%	-5.45
	May	65.34	46.24	0.00	13.000		71%	91%	-6.10
	Jun	62.24	46.24	0.00	13.000		74%	95%	-3.00
	Jul	59.96	46.24	0.00	13.000		77%	99%	-0.72
	Aug	60.07	46.24	0.00	13.000		77%	99%	-0.83

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Sep	60.50	46.24	0.00	13.000		76%	98%	-1.26
	Oct	65.97	46.24	0.00	13.000		70%	90%	-6.73
	Nov	68.60	46.24	0.00	13.000		67%	86%	-9.36
	Dec	70.00	46.24	0.00	13.000		66%	85%	-10.76
2028	Jan	63.14	46.24	0.00	13.000		73%	94%	-3.90
	Feb	62.54	46.24	0.00	13.000		74%	95%	-3.30
	Mar	67.66	46.24	0.00	13.000		68%	88%	-8.42
	Apr	68.88	46.24	0.00	13.000		67%	86%	-9.64
	May	69.57	46.24	0.00	13.000		66%	85%	-10.33
	Jun	66.27	46.24	0.00	13.000		70%	89%	-7.03
	Jul	63.84	46.24	0.00	13.000		72%	93%	-4.60
	Aug	63.96	46.24	0.00	13.000		72%	93%	-4.72
	Sep	64.42	46.24	0.00	13.000		72%	92%	-5.18
	Oct	70.24	46.24	0.00	13.000		66%	84%	-11.00
	Nov	73.05	46.24	0.00	13.000		63%	81%	-13.81
	Dec	74.53	46.24	0.00	13.000		62%	79%	-15.29
2029	Jan	67.30	46.24	0.00	13.000		69%	88%	-8.06
	Feb	66.67	46.24	0.00	13.000		69%	89%	-7.43
	Mar	72.12	46.24	0.00	13.000		64%	82%	-12.88
	Apr	73.42	46.24	0.00	13.000		63%	81%	-14.18
	May	74.16	46.24	0.00	13.000		62%	80%	-14.92
	Jun	70.64	46.24	0.00	13.000		65%	84%	-11.40
	Jul	68.05	46.24	0.00	13.000		68%	87%	-8.81
	Aug	68.18	46.24	0.00	13.000		68%	87%	-8.94
	Sep	68.66	46.24	0.00	13.000		67%	86%	-9.42
	Oct	74.87	46.24	0.00	13.000		62%	79%	-15.63
	Nov	77.86	46.24	0.00	13.000		59%	76%	-18.62
	Dec	79.45	46.24	0.00	13.000		58%	75%	-20.21
2030	Jan	71.79	46.24	0.00	13.000		64%	83%	-12.55
	Feb	71.12	46.24	0.00	13.000		65%	83%	-11.88
	Mar	76.93	46.24	0.00	13.000		60%	77%	-17.69
	Apr	78.32	46.24	0.00	13.000		59%	76%	-19.08
	May	79.11	46.24	0.00	13.000		58%	75%	-19.87
	Jun	75.35	46.24	0.00	13.000		61%	79%	-16.11
	Jul	72.59	46.24	0.00	13.000		64%	82%	-13.35
	Aug	72.72	46.24	0.00	13.000		64%	81%	-13.48
	Sep	73.24	46.24	0.00	13.000		63%	81%	-14.00
	Oct	79.87	46.24	0.00	13.000		58%	74%	-20.63
	Nov	83.05	46.24	0.00	13.000		56%	71%	-23.81
	Dec	84.75	46.24	0.00	13.000		55%	70%	-25.51
2031	Jan	76.61	46.24	0.00	13.000		60%	77%	-17.37
	Feb	75.88	46.24	0.00	13.000		61%	78%	-16.64
	Mar	82.09	46.24	0.00	13.000		56%	72%	-22.85
	Apr	83.57	46.24	0.00	13.000		55%	71%	-24.33
	May	84.41	46.24	0.00	13.000		55%	70%	-25.17
	Jun	80.41	46.24	0.00	13.000		58%	74%	-21.17

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Jul	77.46	46.24	0.00	13.000		60%	76%	-18.22
	Aug	77.60	46.24	0.00	13.000		60%	76%	-18.36
	Sep	78.15	46.24	0.00	13.000		59%	76%	-18.91
	Oct	85.22	46.24	0.00	13.000		54%	70%	-25.98
	Nov	88.63	46.24	0.00	13.000		52%	67%	-29.39
	Dec	90.43	46.24	0.00	13.000		51%	66%	-31.19
2032	Jan	81.75	46.24	0.00	13.000		57%	72%	-22.51
	Feb	80.98	46.24	0.00	13.000		57%	73%	-21.74
	Mar	87.60	46.24	0.00	13.000		53%	68%	-28.36
	Apr	89.18	46.24	0.00	13.000		52%	66%	-29.94
	May	90.08	46.24	0.00	13.000		51%	66%	-30.84
	Jun	85.81	46.24	0.00	13.000		54%	69%	-26.57
	Jul	82.66	46.24	0.00	13.000		56%	72%	-23.42
	Aug	82.81	46.24	0.00	13.000		56%	72%	-23.57
	Sep	83.40	46.24	0.00	13.000		55%	71%	-24.16
	Oct	90.94	46.24	0.00	13.000		51%	65%	-31.70
	Nov	94.57	46.24	0.00	13.000		49%	63%	-35.33
	Dec	96.50	46.24	0.00	13.000		48%	61%	-37.26
2033	Jan	87.22	46.24	0.00	13.000		53%	68%	-27.98
	Feb	86.40	46.24	0.00	13.000		54%	69%	-27.16
	Mar	93.46	46.24	0.00	13.000		49%	63%	-34.22
	Apr	95.15	46.24	0.00	13.000		49%	62%	-35.91
	May	96.11	46.24	0.00	13.000		48%	62%	-36.87
	Jun	91.55	46.24	0.00	13.000		51%	65%	-32.31
	Jul	88.19	46.24	0.00	13.000		52%	67%	-28.95
	Aug	88.35	46.24	0.00	13.000		52%	67%	-29.11
	Sep	88.98	46.24	0.00	13.000		52%	67%	-29.74
	Oct	97.03	46.24	0.00	13.000		48%	61%	-37.79
	Nov	100.90	46.24	0.00	13.000		46%	59%	-41.66
	Dec	102.96	46.24	0.00	13.000		45%	58%	-43.72

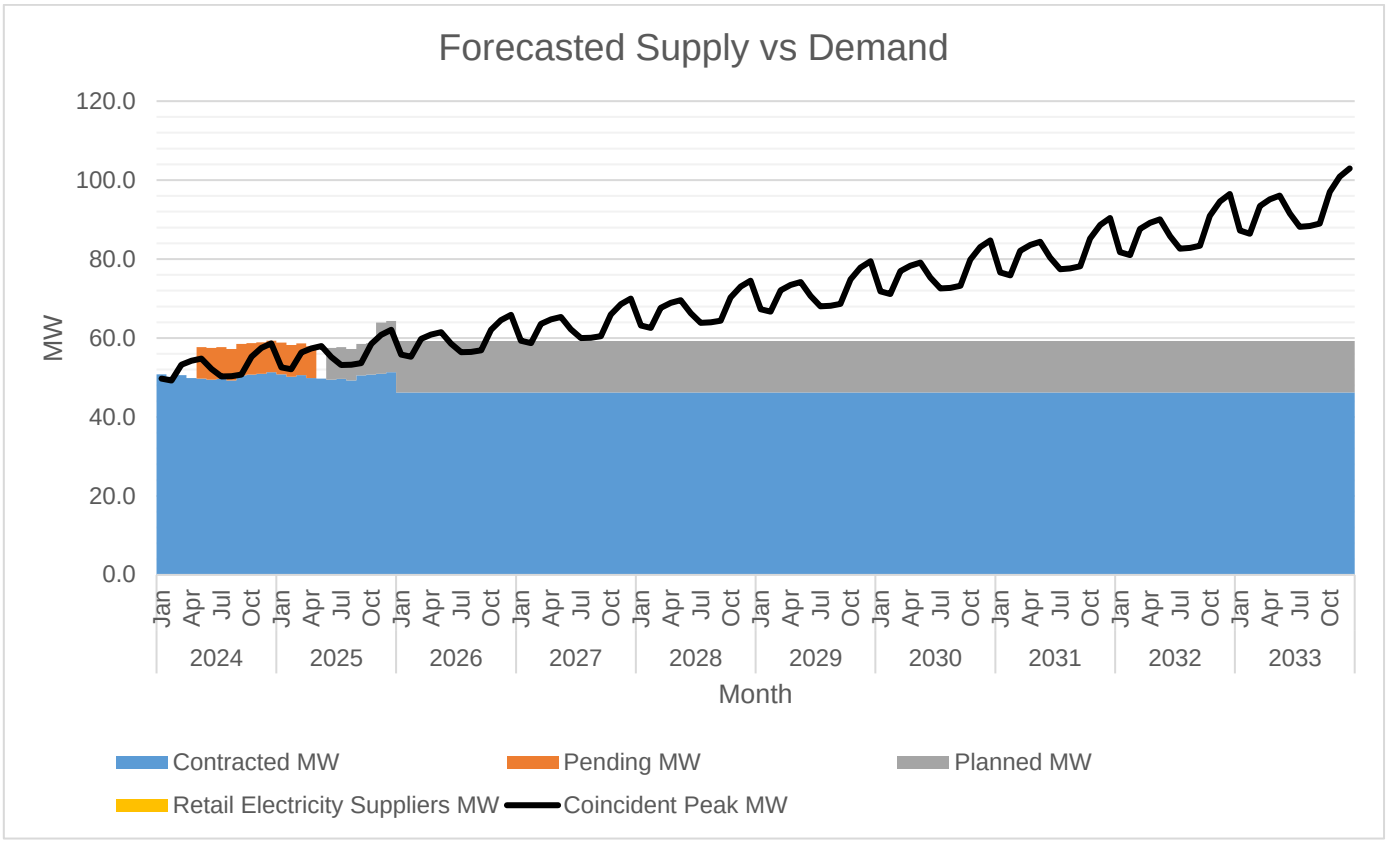
The Peak Demand was forecasted using the input MWh energy Offtake as independent variable, then utilizing the average load factor of the previous historical year (peak demand usually occurs in the month of May) in order to get the Coincident Peak. Peak Demand is at its lowest on the month of July since it is the start of the rainy season. The forecasted Peak Demand is expect to grow at an average rate of 6% in preparation for the in-coming spot loads.

Incoming Spot loads and Big loads are shown in the table below.

No.	Name	Supplying Substation	Year to energize	Expected Installed Capacity (kva)	Additional Demand (kva)
1	Gaisano	Culo	2024	1,500	900
2	Rudhil Resort	Culo	2024	750	450
3	Argao Rice Mill	Culo	2024	225	135
4	Molave Cinema	Culo	2024	750	450
5	ROBINSON	Unit-2 Sta Maria	2024	5,000	3,000
6	Rudhil Hotel	Balangasan	2024	750	450
9	LGU commercial	Upper Bayao	2024	225	135

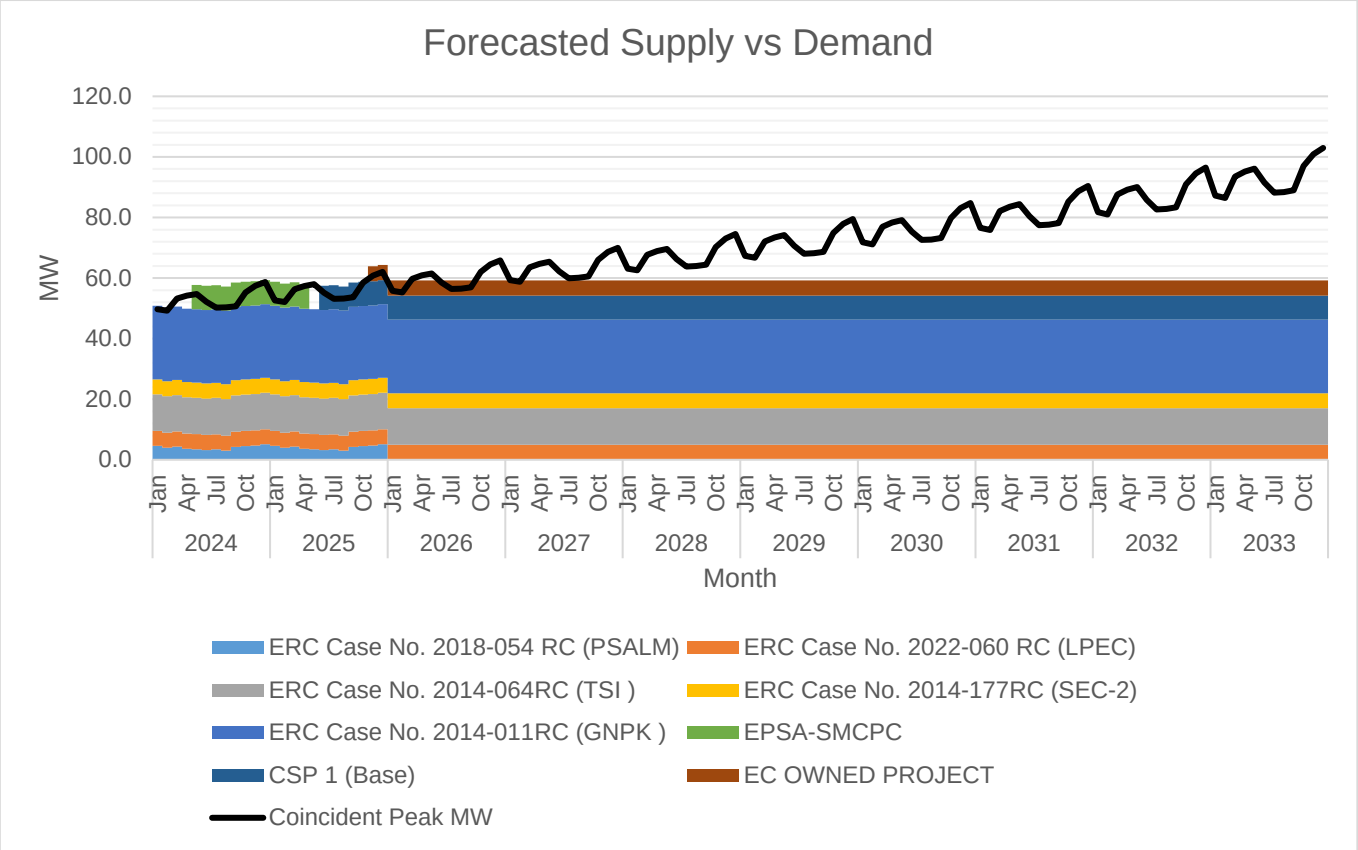
Projected Supply Deficit by year 2026 onwards

The deficit in year 2026 and onwards is a result of the assumption that PSALM will no longer supply capacity to ECs. We also take into consideration the launching of RCOA, which will expectedly result in reduction of our energy demand and stranded contracts to that effect, especially when our end-users with at least 500kW load will switch to other power suppliers (e.g. RES, GEOP, etc.).

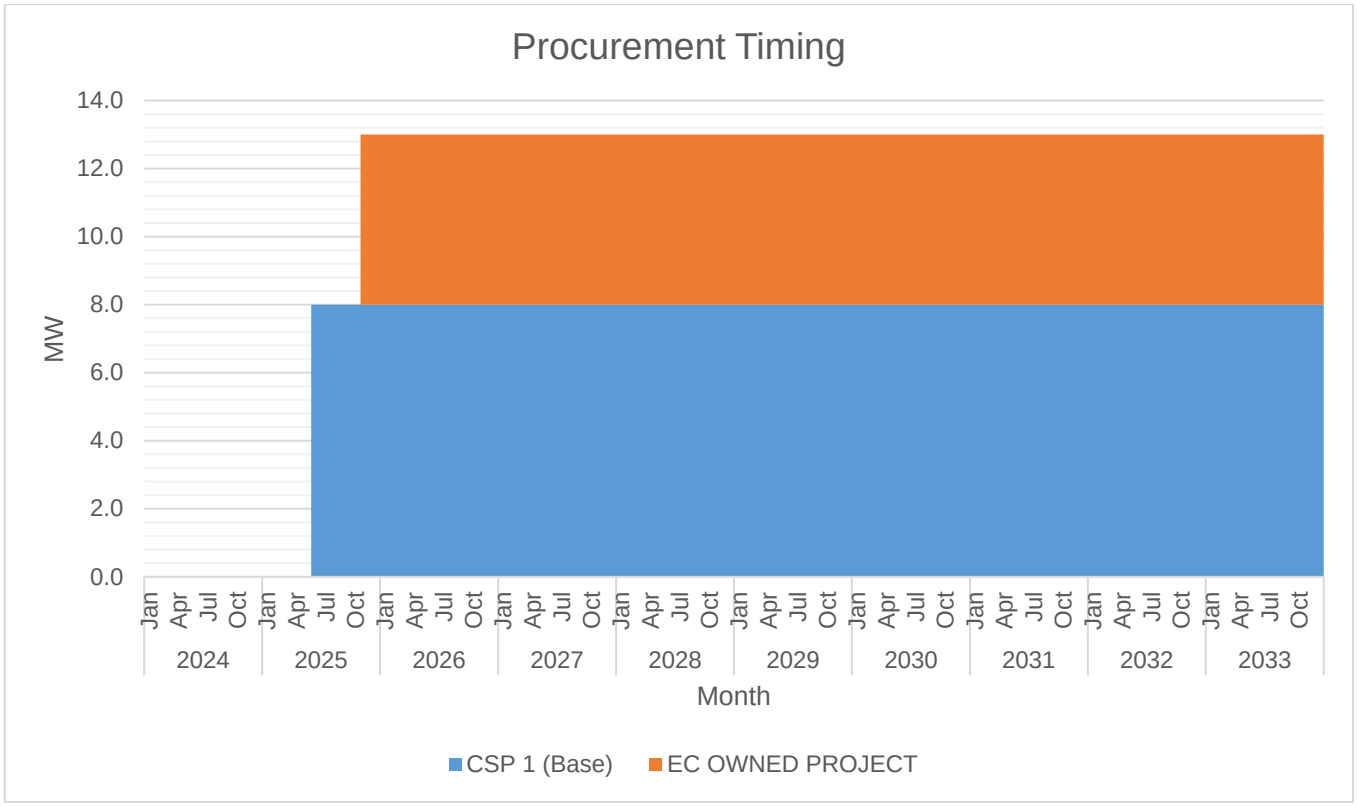


The available supply is generally below the Peak Demand. This is because one of our existing contracted IPP, which is the San Miguel Consolidated Power Corporation (SMCPC), was affected by the ERC decision on the Alyansa Para sa Bagong Pilipinas, inc. (ABP) petition.

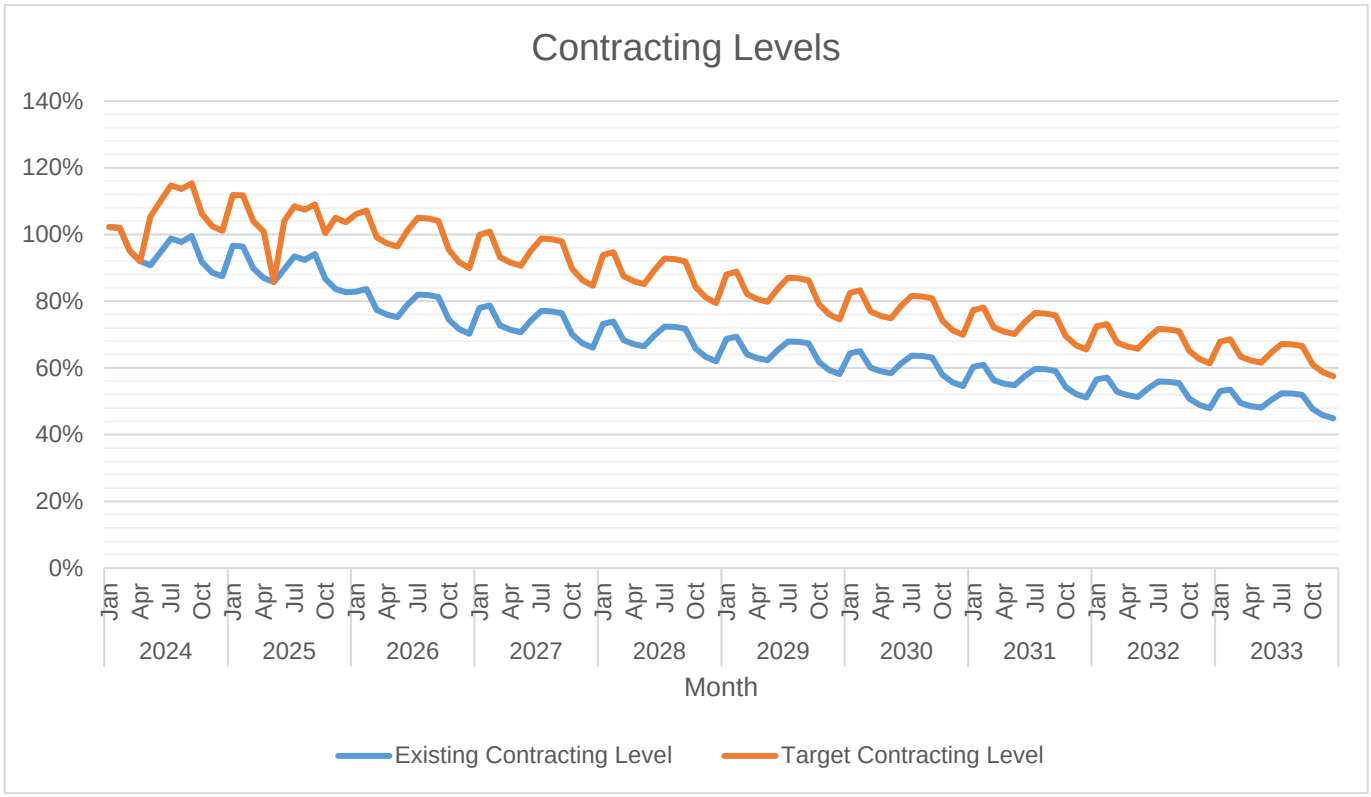
In order to resolve our deficit of supply for the year 2024, ZAMSURECO-I filed for and Emergency Power Supply Agreement (EPSA) to the ERC of an 8MW contract from San Miguel Consolidated Power Corporation (SMCPC). Currently, the said application is still ongoing and we are still waiting for the ERC approval on the said application.



Of the available supply, the largest is 24.24 MW from GNPK. This is followed by 12 MW from TSI.



The first wave of supply procurement will be for 8 MW planned to be available by the month of May 2025.



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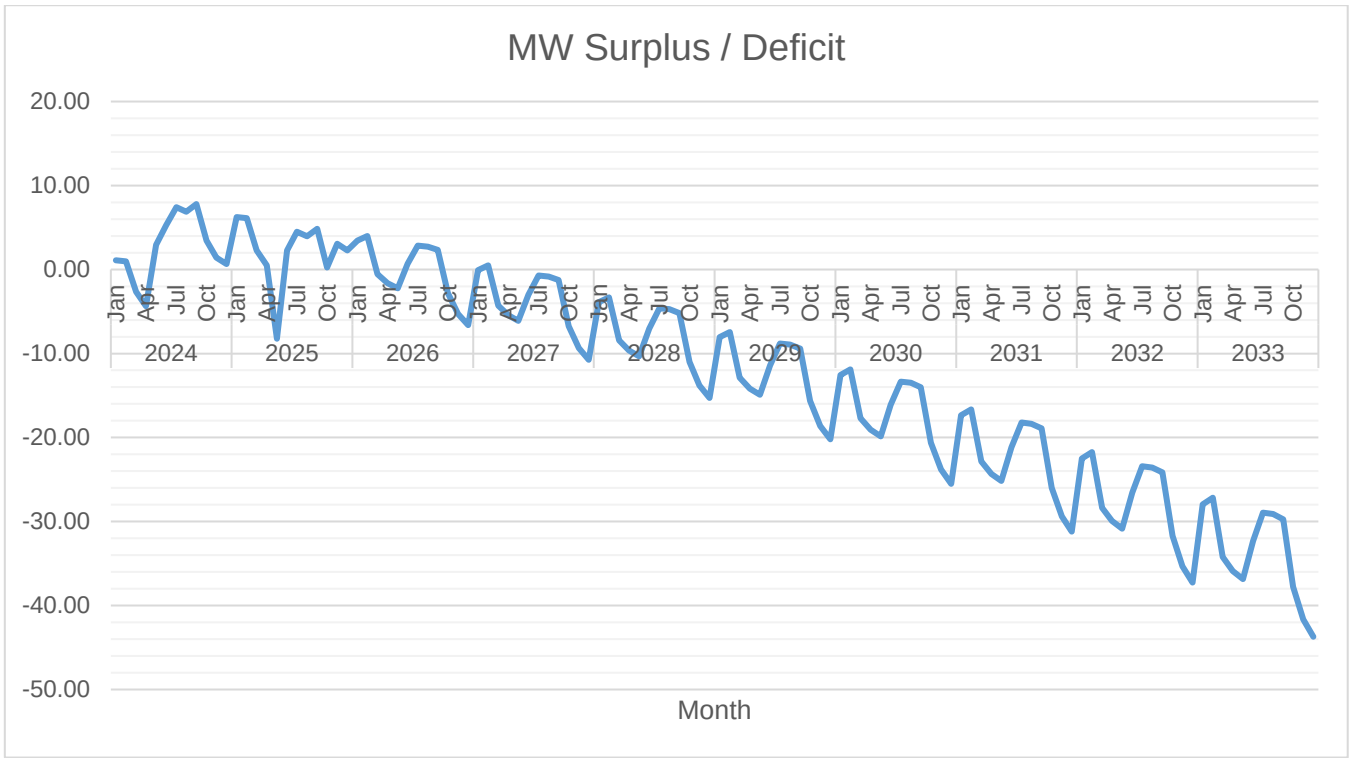


Currently, the highest deficit for the year 2026 is 6.61 MW, which is expected to occur on the month of December 2026. The lowest deficit is 0.06 MW that is expect to occur on the month of January 2027.

Projected Supply Deficit by year 2026 onwards

The deficit in year 2026 and onwards is a result of the assumption that PSALM will no longer supply capacity to ECs. We also take into consideration the launching of RCOA, which will expectedly result in reduction of our energy demand and stranded contracts to that effect, especially when our end-users with at least 500kW load will switch to other power suppliers (e.g. RES, GEOP, etc.).

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2024	Jan	28,494	23,999	2,374	7.44%	9.00%
	Feb	29,385	24,749	2,448	7.44%	9.00%
	Mar	28,044	23,620	2,336	7.44%	9.00%
	Apr	31,386	26,435	2,614	7.44%	9.00%
	May	31,025	26,131	2,584	7.44%	9.00%
	Jun	29,826	25,122	2,485	7.44%	9.00%
	Jul	28,674	24,151	2,389	7.44%	9.00%
	Aug	29,737	25,046	2,477	7.44%	9.00%
	Sep	30,471	25,664	2,538	7.44%	9.00%
	Oct	30,456	25,651	2,537	7.44%	9.00%
	Nov	32,522	27,392	2,709	7.44%	9.00%
	Dec	31,601	26,616	2,632	7.44%	9.00%
2025	Jan	30,146	25,391	2,511	7.44%	9.00%
	Feb	31,089	26,185	2,590	7.44%	9.00%
	Mar	29,671	24,991	2,472	7.44%	9.00%
	Apr	33,206	27,968	2,766	7.44%	9.00%
	May	32,824	27,646	2,734	7.44%	9.00%
	Jun	31,556	26,579	2,629	7.44%	9.00%
	Jul	30,337	25,552	2,527	7.44%	9.00%
	Aug	31,462	26,499	2,621	7.44%	9.00%
	Sep	32,238	27,153	2,685	7.44%	9.00%
	Oct	32,222	27,139	2,684	7.44%	9.00%
	Nov	34,409	28,981	2,866	7.44%	9.00%
	Dec	33,434	28,160	2,785	7.44%	9.00%
2026	Jan	31,980	26,935	2,664	7.44%	9.00%
	Feb	32,980	27,777	2,747	7.44%	9.00%
	Mar	31,475	26,510	2,622	7.44%	9.00%
	Apr	35,225	29,669	2,934	7.44%	9.00%
	May	34,820	29,328	2,901	7.44%	9.00%
	Jun	33,476	28,195	2,789	7.44%	9.00%
	Jul	32,182	27,106	2,681	7.44%	9.00%
	Aug	33,375	28,110	2,780	7.44%	9.00%
	Sep	34,199	28,804	2,849	7.44%	9.00%
	Oct	34,182	28,790	2,847	7.44%	9.00%
	Nov	36,501	30,743	3,041	7.44%	9.00%
	Dec	35,467	29,872	2,954	7.44%	9.00%
2027	Jan	33,996	28,633	2,832	7.44%	9.00%
	Feb	35,059	29,529	2,920	7.44%	9.00%
	Mar	33,460	28,182	2,787	7.44%	9.00%
	Apr	37,446	31,540	3,119	7.44%	9.00%

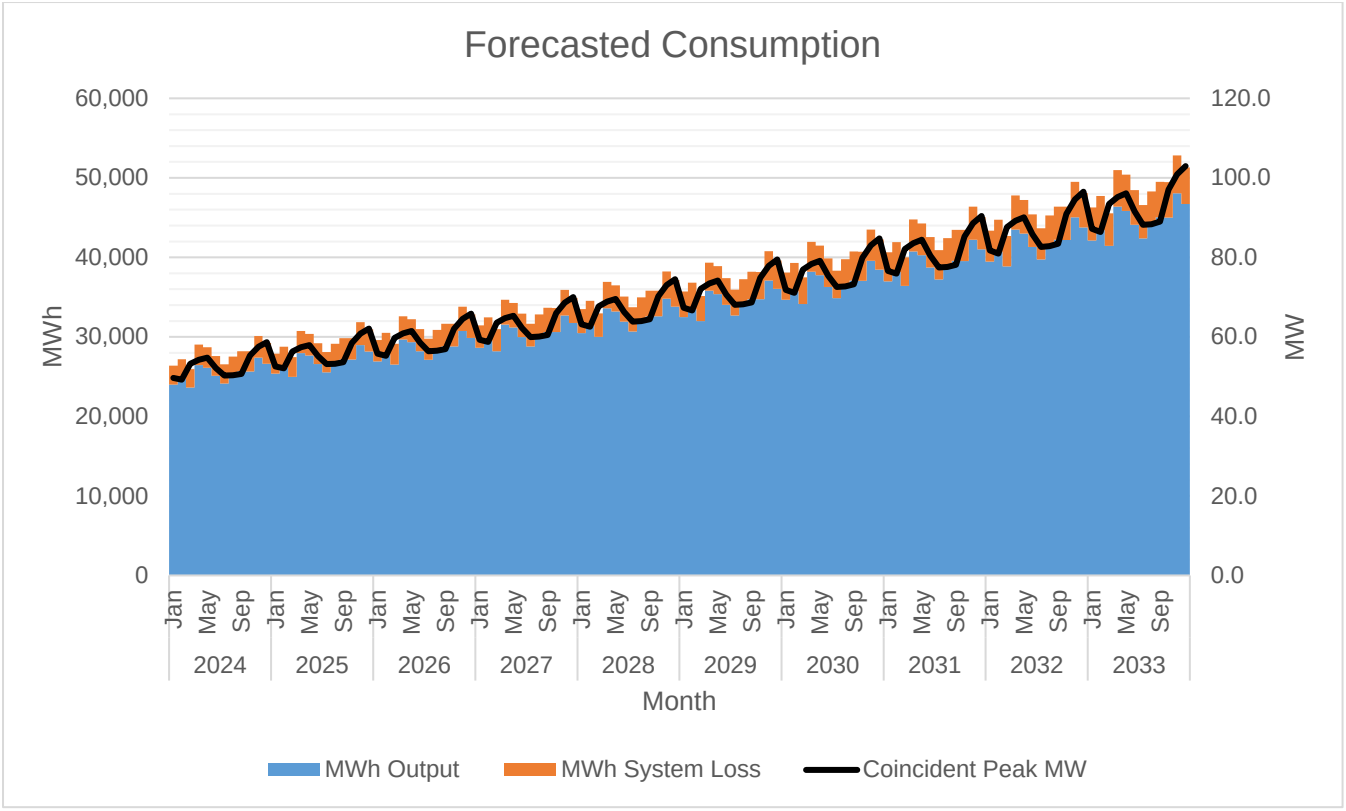
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	May	37,016	31,177	3,083	7.44%	9.00%
	Jun	35,586	29,973	2,964	7.44%	9.00%
	Jul	34,211	28,815	2,850	7.44%	9.00%
	Aug	35,479	29,883	2,955	7.44%	9.00%
	Sep	36,355	30,620	3,028	7.44%	9.00%
	Oct	36,337	30,605	3,027	7.44%	9.00%
	Nov	38,803	32,682	3,232	7.44%	9.00%
	Dec	37,703	31,756	3,141	7.44%	9.00%
2028	Jan	36,197	30,487	3,015	7.44%	9.00%
	Feb	37,329	31,441	3,110	7.44%	9.00%
	Mar	35,626	30,006	2,968	7.44%	9.00%
	Apr	39,871	33,581	3,321	7.44%	9.00%
	May	39,412	33,195	3,283	7.44%	9.00%
	Jun	37,890	31,913	3,156	7.44%	9.00%
	Jul	36,426	30,680	3,034	7.44%	9.00%
	Aug	37,777	31,818	3,147	7.44%	9.00%
	Sep	38,709	32,603	3,224	7.44%	9.00%
	Oct	38,689	32,586	3,223	7.44%	9.00%
	Nov	41,315	34,798	3,442	7.44%	9.00%
	Dec	40,144	33,812	3,344	7.44%	9.00%
2029	Jan	38,584	32,497	3,214	7.44%	9.00%
	Feb	39,790	33,514	3,315	7.44%	9.00%
	Mar	37,975	31,985	3,163	7.44%	9.00%
	Apr	42,500	35,796	3,540	7.44%	9.00%
	May	42,011	35,384	3,500	7.44%	9.00%
	Jun	40,389	34,018	3,364	7.44%	9.00%
	Jul	38,828	32,703	3,234	7.44%	9.00%
	Aug	40,267	33,915	3,354	7.44%	9.00%
	Sep	41,261	34,752	3,437	7.44%	9.00%
	Oct	41,240	34,735	3,435	7.44%	9.00%
	Nov	44,039	37,092	3,668	7.44%	9.00%
	Dec	42,791	36,041	3,565	7.44%	9.00%
2030	Jan	41,157	34,665	3,428	7.44%	9.00%
	Feb	42,444	35,749	3,536	7.44%	9.00%
	Mar	40,508	34,118	3,374	7.44%	9.00%
	Apr	45,334	38,183	3,776	7.44%	9.00%
	May	44,813	37,744	3,733	7.44%	9.00%
	Jun	43,082	36,286	3,589	7.44%	9.00%
	Jul	41,418	34,884	3,450	7.44%	9.00%
	Aug	42,953	36,177	3,578	7.44%	9.00%
	Sep	44,013	37,070	3,666	7.44%	9.00%
	Oct	43,991	37,052	3,664	7.44%	9.00%
	Nov	46,976	39,566	3,913	7.44%	9.00%
	Dec	45,645	38,445	3,802	7.44%	9.00%
2031	Jan	43,917	36,989	3,658	7.44%	9.00%
	Feb	45,291	38,146	3,773	7.44%	9.00%
	Mar	43,225	36,406	3,601	7.44%	9.00%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Apr	48,375	40,744	4,030	7.44%	9.00%
	May	47,818	40,275	3,983	7.44%	9.00%
	Jun	45,972	38,720	3,829	7.44%	9.00%
	Jul	44,195	37,224	3,681	7.44%	9.00%
	Aug	45,834	38,604	3,818	7.44%	9.00%
	Sep	46,965	39,556	3,912	7.44%	9.00%
	Oct	46,941	39,536	3,910	7.44%	9.00%
	Nov	50,127	42,219	4,176	7.44%	9.00%
	Dec	48,706	41,023	4,057	7.44%	9.00%
2032	Jan	46,865	39,472	3,904	7.44%	9.00%
	Feb	48,331	40,707	4,026	7.44%	9.00%
	Mar	46,126	38,850	3,842	7.44%	9.00%
	Apr	51,622	43,479	4,300	7.44%	9.00%
	May	51,028	42,979	4,251	7.44%	9.00%
	Jun	49,057	41,319	4,086	7.44%	9.00%
	Jul	47,162	39,722	3,929	7.44%	9.00%
	Aug	48,910	41,195	4,074	7.44%	9.00%
	Sep	50,117	42,211	4,175	7.44%	9.00%
	Oct	50,092	42,190	4,173	7.44%	9.00%
	Nov	53,491	45,053	4,456	7.44%	9.00%
	Dec	51,975	43,777	4,330	7.44%	9.00%
2033	Jan	50,000	42,113	4,165	7.44%	9.00%
	Feb	51,564	43,430	4,295	7.44%	9.00%
	Mar	49,212	41,449	4,099	7.44%	9.00%
	Apr	55,075	46,388	4,588	7.44%	9.00%
	May	54,442	45,854	4,535	7.44%	9.00%
	Jun	52,339	44,083	4,360	7.44%	9.00%
	Jul	50,317	42,380	4,191	7.44%	9.00%
	Aug	52,182	43,951	4,347	7.44%	9.00%
	Sep	53,470	45,035	4,454	7.44%	9.00%
	Oct	53,443	45,013	4,452	7.44%	9.00%
	Nov	57,070	48,067	4,754	7.44%	9.00%
	Dec	55,453	46,706	4,619	7.44%	9.00%

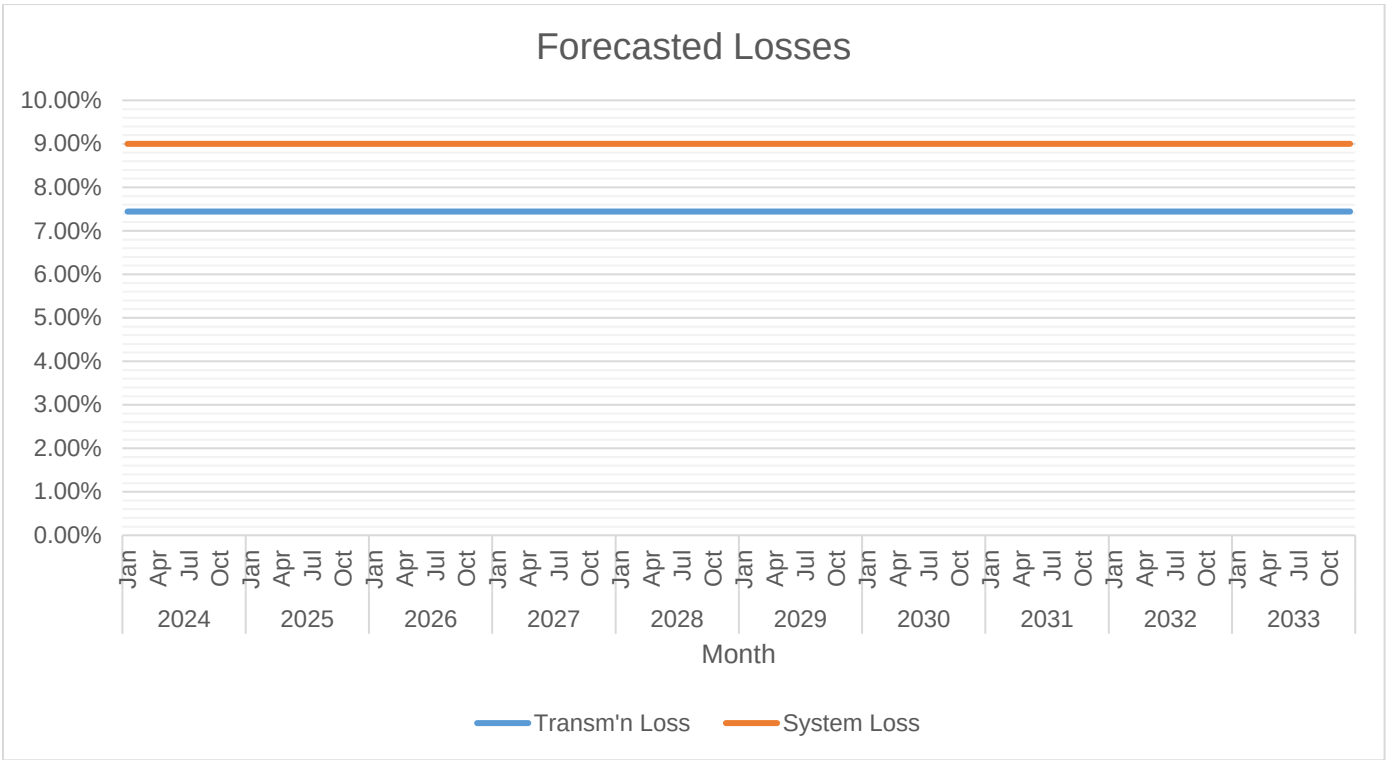
MWh Offtake forecasted data was computed by adding the MWh transmission loss and the MWh Input. The assumed percent (%) annual average transmission loss is 7.44%, which is the percent (%) annual average transmission loss of the previous year.

While for the System Loss, ZAMSURECO –I is doing its best effort to achieve a single digit percentage average annually. Therefore, the system loss forecasted data was calculated based on a single digit value which is 9%.

Hence, The Cooperative sees to it that system loss percentage average annually is kept below the NEA prescribed system loss cap. Currently, System Losses of ECs are based on the Feeder Loss Cap. The percent (%) annual feeder loss for the year 2023 is 9.07%, whereas the Substation loss is 0.74%, total of 9.81% systems loss.



MWh Output was expected to grow at a rate of 6% annually due to incoming spot loads and big loads on the system demand.



Transmission Loss is expected to rate at 7.44% annually while System Loss is expected to hit our target of 9% annually.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	Maximum MW	Maximum MWh/yr	PSA Start	PSA End
ERC Case No. 2018-054 RC (PSALM)	Base	Power Sector Assets and Liabilities Management Corporation	0.00	35,164	6.00	35,164	12/26/2023	12/25/2025
ERC Case No. 2022-060 RC (LPEC)	Base	Other	0.00	43,800	5.00	43,800	12/26/2023	12/25/2048
ERC Case No. 2014-064RC (TSI)	Base	Therma South, Inc.	4.80	42,048	12.00	105,120	3/16/2018	3/16/2043
ERC Case No. 2014-177RC (SEC-2)	Base	Sarangani Energy Corporation	2.00	17,520	5.00	43,800	10/10/2019	10/10/2044
ERC Case No. 2014-011RC (GNPK)	Base	GN Power Kauswagan Ltd.	12.12	106,171	24.24	212,342.40	8/8/2019	8/8/2039

The **PSA with PSALM/NPC** was renewed for another two (2) years starting from December 26, 2023 to December 25, 2025. PSALM/NPC is the cheapest source of baseload power supply. The renewed Contract for the Supply of Electric Energy (CSEE) with the PSALM for the next two (2) years remains the same contracted energy of 30,835 MWH/yr and equivalent maximum demand of 6 MW. PSALM is the first priority dispatch considering that its portfolio mainly consists of generation facilities that utilize hydropower technology.

- For the PSALM Billing. The Average Rate of PSALM is 2.8Php per kWh and no fixed cost charged to the customers.

PSA with LPEC Biomass Power Plant was the first embedded renewable generating power plant with a 5MW contracting capacity to ZAMSURECO-I. The said embedded generating power plant is located at Brgy. Poblacion, Aurora, Zamboanga del Sur. Libertad Power and Energy Corporation (LPEC) will start its billing to ZAMSURECO-I on the billing month of January 2024. LPEC is the second priority dispatch because it is an embedded renewable energy generating plant (Priority Dispatch).

- For the LPEC Billing. As per ERC Order dated September 13, 2023, mentioned that the applicable rate for the implementation of the Interim Relief shall be capped at the approved Green Energy Auction Reserve (GEAP) Price for the Biomass Technology of 5.4024Php per kwh.

PSA with TSI was the first baseload power supply agreement that ZAMSURECO-I entered into. TSI was the first IPP to offer baseload power supply in Mindanao. During that time, ECs are in dire need of baseload power due to power supply crisis that hit the entire Mindanao Grid, resulting in power curtailment of 6-8 hours per day.

- For the TSI Billing, under PSA, the Actual Fuel Cost is 1.3659Php per kWh with a Variable O&M Fee of 0.3302Php per kWh and with a Fixed O&M Fee of 439.58Php per kw-month. The Capacity Fixed Fee is 1,961.89Php per kW-month.

The **contract with SEC** was intended to ensure sufficient power supply and to diversify the Cooperative's sources of power. SEC is owned by Alsons Power which owns several peaking plants in Mindanao. One of its peaking plants is located in Zamboanga Peninsula (Zampen) and was previously utilized by the transmission system operator for voltage regulation, keeping the supply voltage in Zampen within acceptable level especially during peaking periods.

- For the SEC Billing, under PSA, the Actual Fuel Cost is 1.69Php per kWh with a Variable O&M Fee of 0.32Php per kWh and with a Fixed O&M Fee of 333.23Php per kW-month. The Capacity Fixed Fee is 2,181.32Php per kW with a Foreign Capital Recovery Fee of 28.69USD per kW-month and Domestic Capital Recovery Fee of 603.37Php per kW-month.

GNPK Contract was signed in 2012. It was a result of power supply aggregation initiative of AMRECO Member-ECs. With aggregation, the ECs were able to increase its bargaining power in supply contracting, thereby resulting in reduced generation costs.

- For the GNPK Billing, under PSA, the Energy Fee is 2.5575Php per kWh with an Energy Fee of 0.0465USD per kWh and the FX used is at 55Php per USD, depends on the Foreign exchange rate per Billing month. The Capacity Fee is 3.5310Php per kWh where fixed charges is at MEOT of 75% with Capacity Fee of 0.0642USD per kWh and the FX used is at 55Php per USD, depends on the Foreign exchange rate per Billing month.

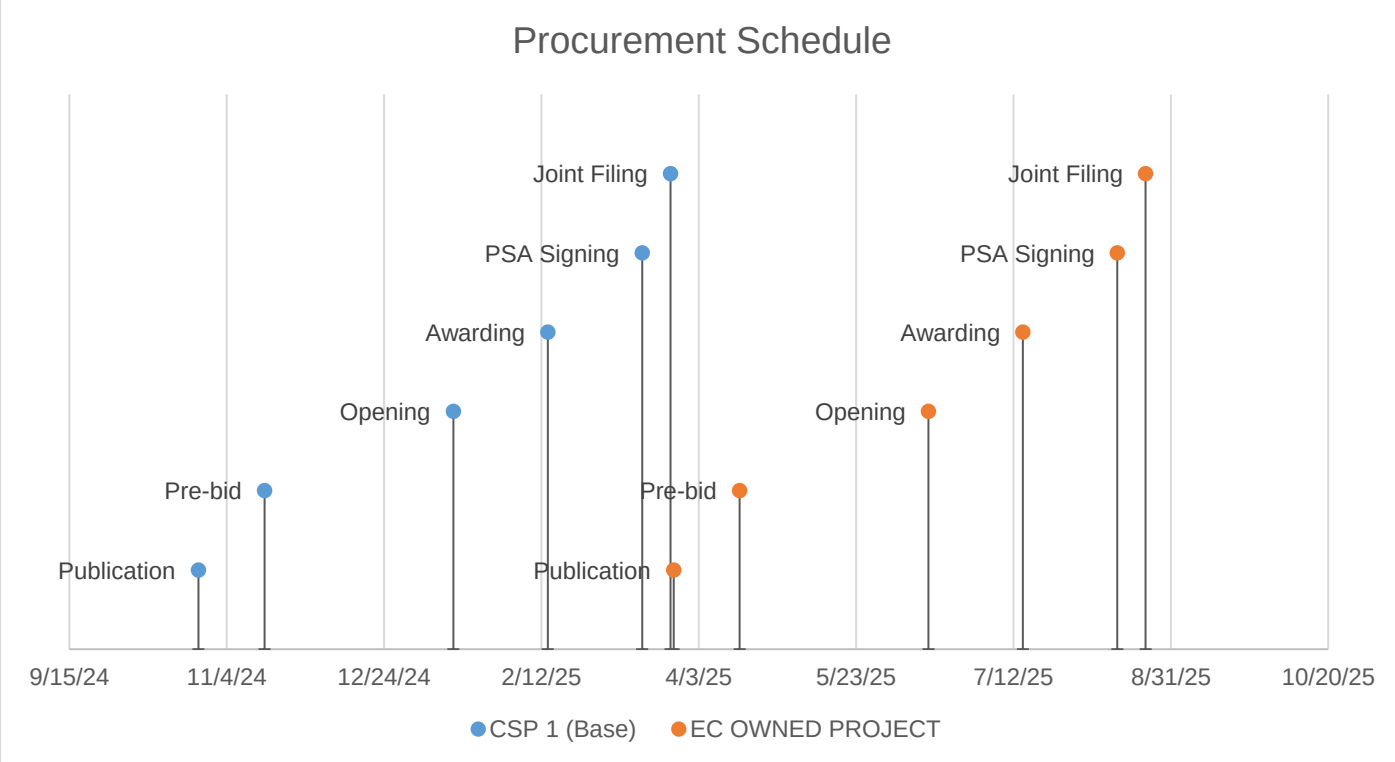
Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	Maximum MW	Maximum MWh/yr	PSA Start	PSA End
EPSA-SMCPC	Base	San Miguel Consolidated Power Corporation	3.20	28,032	8.00	70,080	4/26/2024	4/25/2025

ZAMSURECO-I needs to undertake EPSA due to insufficient power supply for its power supply requirements from 2024 and beyond.

ZAMSURECO-I intends to jointly file with San Miguel Consolidated Power Corporation (SMCPC) for an 8MW Emergency Power Supply Agreement (EPSA) before the ERC in order to address the power supply deficiency problem starting the year 2024 onwards.

The said application is still on going and we are still waiting for the ERC approval.

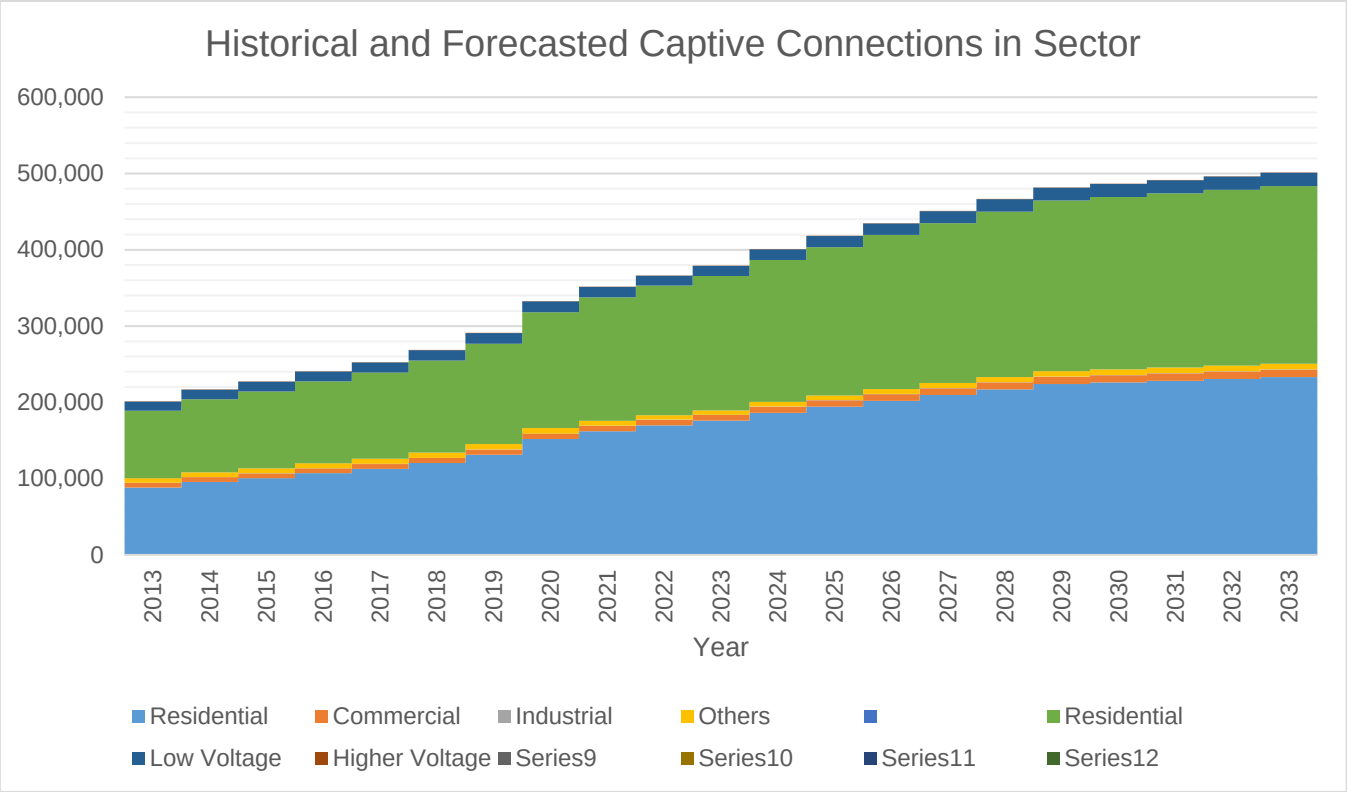
	CSP 1 (Base)	EC OWNED PROJECT
Type	Base	Base
Minimum MW	3.20	2.00
Minimum MWh/yr	28,032	17,520
Maximum MW	8.00	5.00
Maximum MWh/yr	70,080	43,800
PSA Start	5/26/2025	10/26/2025
PSA End	5/25/2035	10/25/2045
Publication	10/26/2024	3/26/2025
Pre-bid	11/16/2024	4/16/2025
Opening	1/15/2025	6/15/2025
Awarding	2/14/2025	7/15/2025
PSA Signing	3/16/2025	8/14/2025
Joint Filing	3/25/2025	8/23/2025



For the procurement of 8 MW of supply which is planned to be available on **May 2025**, the first publication or launch of CSP will be in **October 2024**. Joint filing is planned on **March 2025**, or 150 days later, in accordance with DOE's CSP Policy and ERC Guidelines.

On the other hand, ZAMSURECO-I intends to venture into power generation by converting its existing 5-hectare pole farm into a 5MW solar farm. The said project is **still indicative,** but Baseline studies had already been conducted and the project is expected to be completed in the year 2025. The said project will be the first EC owned Power Generating Plant of ZAMSURECO-I.

Captive Customer Connections



Throughout the entire planning period, the growth in number of residential customers is steadily increasing, growing at a rate similar to the growth trend of total energy consumption. This is expected because majority of ZAMSURECO-I's captive customers are residential.

The number of residential connections is expected to grow at an average rate of 3% annually. Said customer class is expected to account for 54% of the total consumption.