Power Supply Procurement Plan 2024

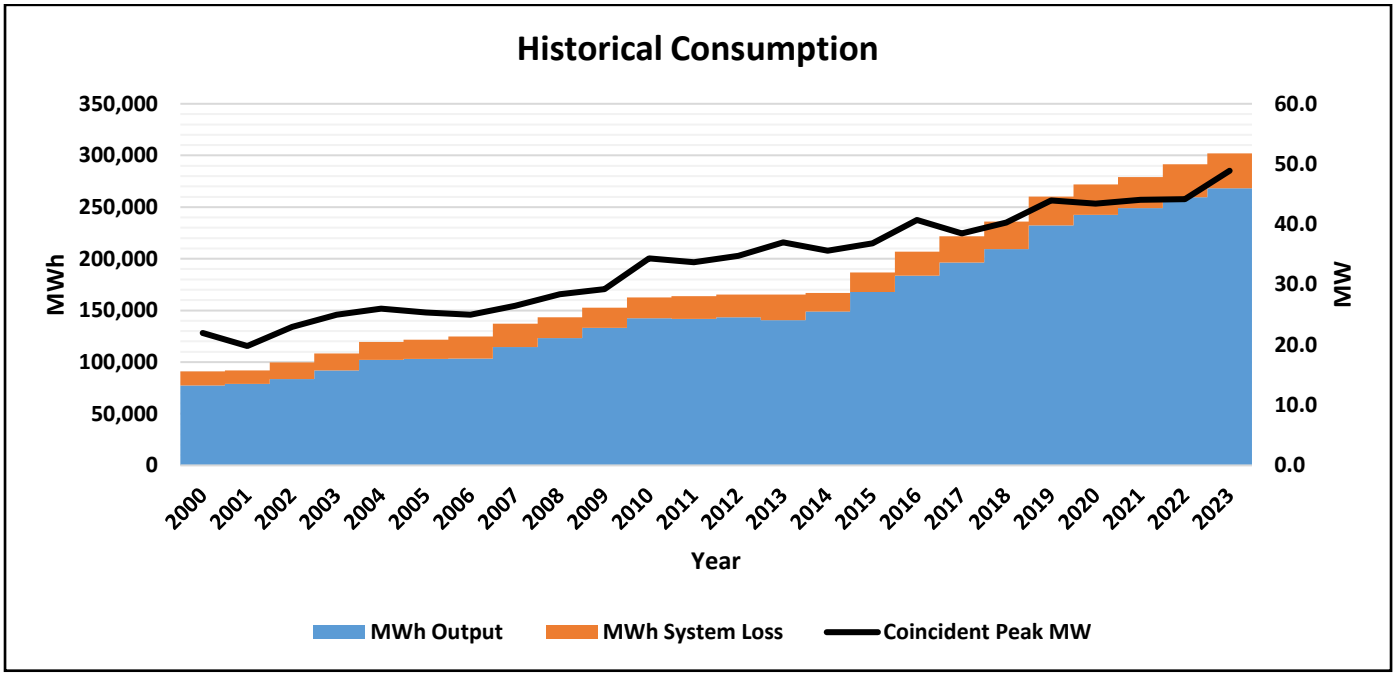
NORTHERN NEGROS ELECTRIC COOPERATIVE, INC. (NONECO)

Historical Consumption Data

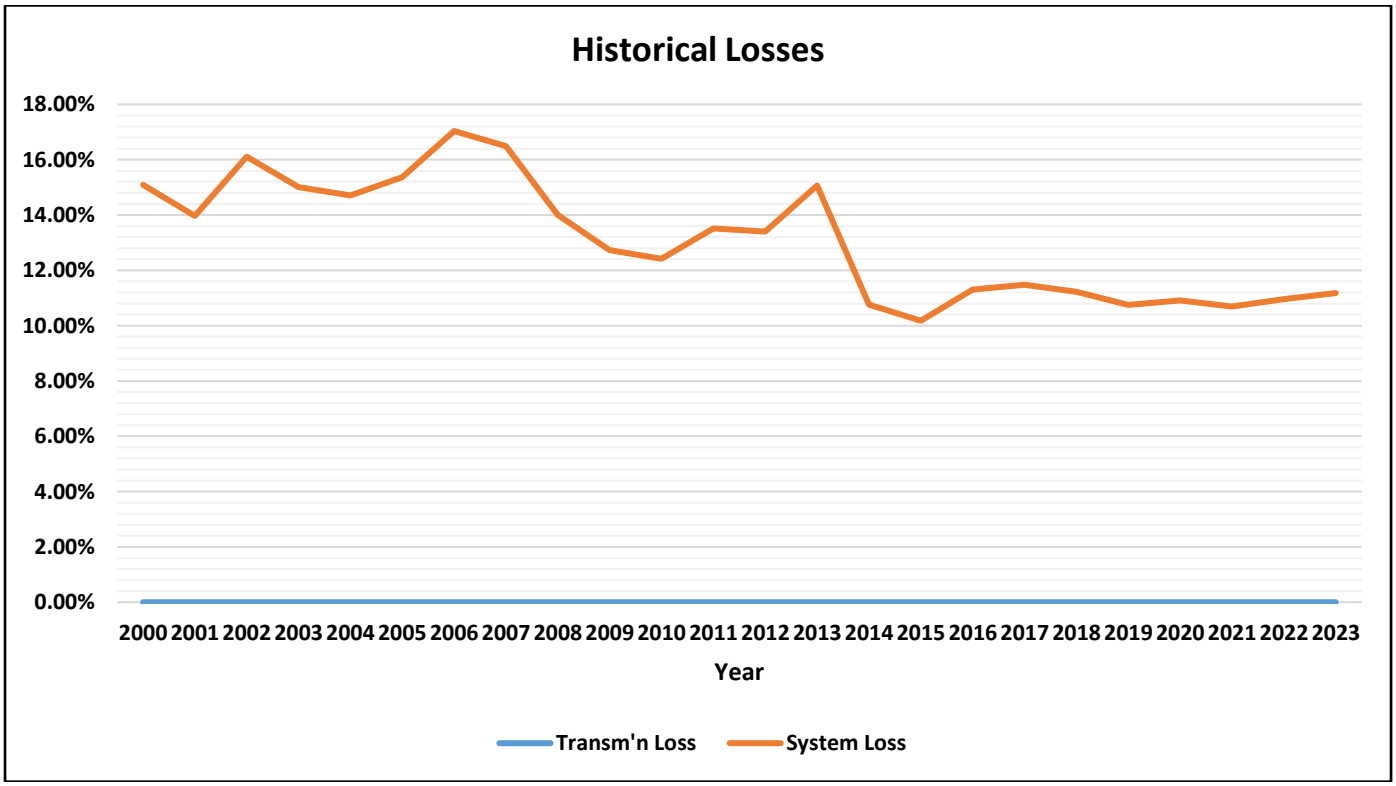
	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	21.97	91,028	0	91,028	77,296	13,733	47%	0.00%	0.00%	15.09%
2001	19.81	91,784	0	91,784	78,963	12,821	53%	0.00%	0.00%	13.97%
2002	23.00	99,722	0	99,722	83,658	16,064	49%	0.00%	0.00%	16.11%
2003	25.00	108,305	0	108,305	92,055	16,250	49%	0.00%	0.00%	15.00%
2004	26.00	119,588	0	119,588	102,003	17,585	53%	0.00%	0.00%	14.70%
2005	25.35	121,792	0	121,792	103,079	18,713	55%	0.00%	0.00%	15.36%
2006	25.00	124,633	0	124,633	103,401	21,232	57%	0.00%	0.00%	17.04%
2007	26.46	137,201	0	137,201	114,576	22,625	59%	0.00%	0.00%	16.49%
2008	28.43	143,223	0	143,223	123,175	20,047	58%	0.00%	0.00%	14.00%
2009	29.25	152,658	0	152,658	133,227	19,432	60%	0.00%	0.00%	12.73%
2010	34.34	162,704	0	162,704	142,502	20,201	54%	0.00%	0.00%	12.42%
2011	33.69	163,942	-18,911	163,942	141,779	22,163	56%	0.00%	0.00%	13.52%
2012	34.77	165,422	-21,234	165,422	143,251	22,172	54%	0.00%	0.00%	13.40%
2013	37.01	165,451	-17,917	165,451	140,527	24,924	51%	0.00%	0.00%	15.06%
2014	35.60	166,886	-12,904	166,886	148,928	17,958	54%	0.00%	0.00%	10.76%
2015	36.82	186,722	18,834	186,722	167,722	19,000	58%	0.00%	0.00%	10.18%
2016	40.74	206,989	46,480	206,989	183,588	23,401	58%	0.00%	0.00%	11.31%
2017	38.51	221,748	30,681	221,748	196,304	25,443	66%	0.00%	0.00%	11.47%
2018	40.31	235,964	46,956	235,964	209,489	26,475	67%	0.00%	0.00%	11.22%

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2019	43.98	260,113	65,478	260,113	232,156	27,957	68%	0.00%	0.00%	10.75%
2020	43.44	272,086	79,944	272,086	242,392	29,694	71%	0.00%	0.00%	10.91%
2021	44.06	278,957	84,917	278,957	249,139	29,818	72%	0.00%	0.00%	10.69%
2022	44.18	291,477	54,366	291,477	259,542	31,935	75%	0.00%	0.00%	10.96%
2023	48.89	301,945	111,399	301,945	268,188	33,757	71%	0.00%	0.00%	11.18%

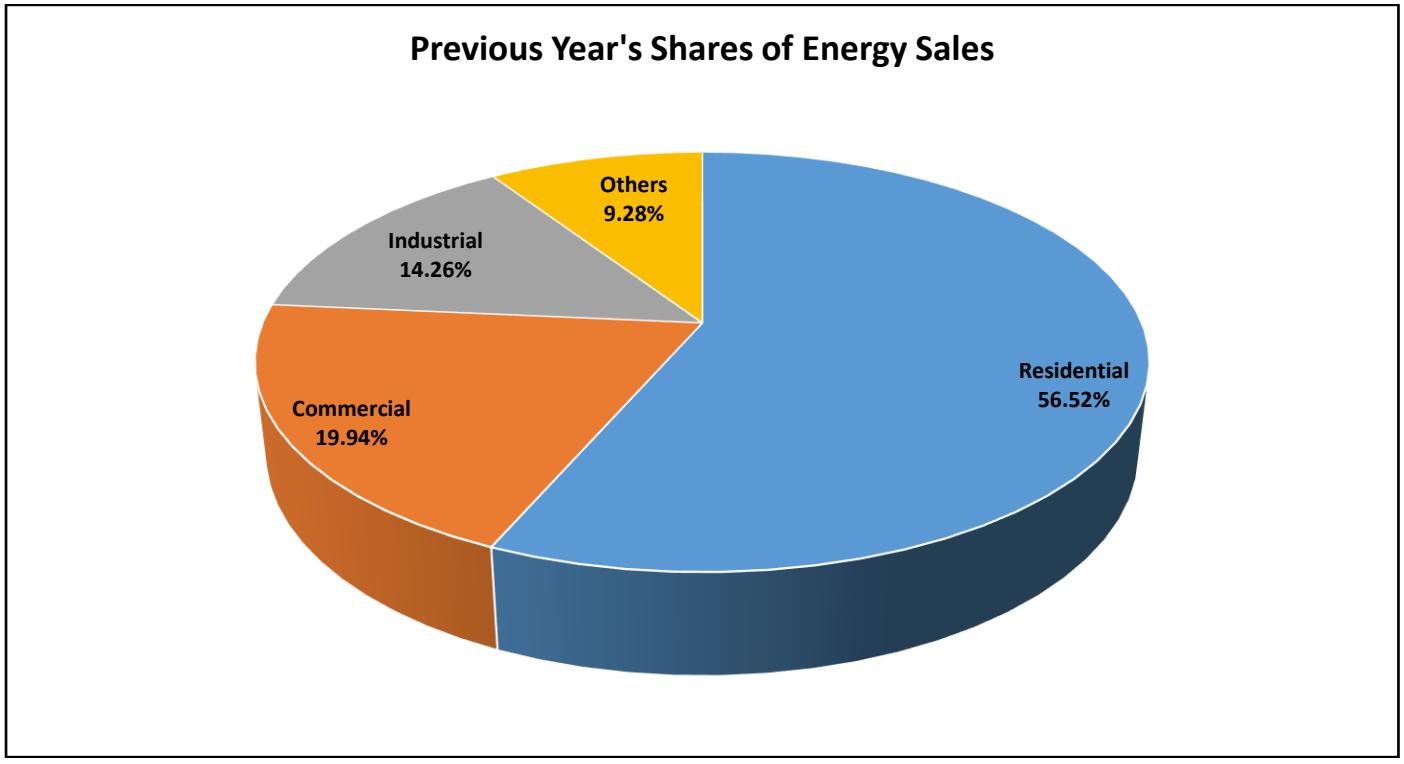
Peak Demand increased from 21.97 MW in 2000 to 48.89 MW in 2023 at a rate of 3.74% average year due to on-going programs of Local Government Units (LGUs) to develop the way of living of consumers primarily in the northern part of Negros. Commercial buildings, revitalization of prawn farms and fishponds, and increasing consumption for residential consumers that increase our demand. MWh Offtake increased from 91,028 MWh in 2000 to 301,945 MWh in 2023 at a rate of 5.42% average each year, which highlights the entrant of new commercial establishments. Within the same period, the Load Factor ranged from 47% to 71%. There was an abrupt change in consumption from 2019 to 2020 is due to decrease of demand brought by the recent COVID-19 Pandemic.



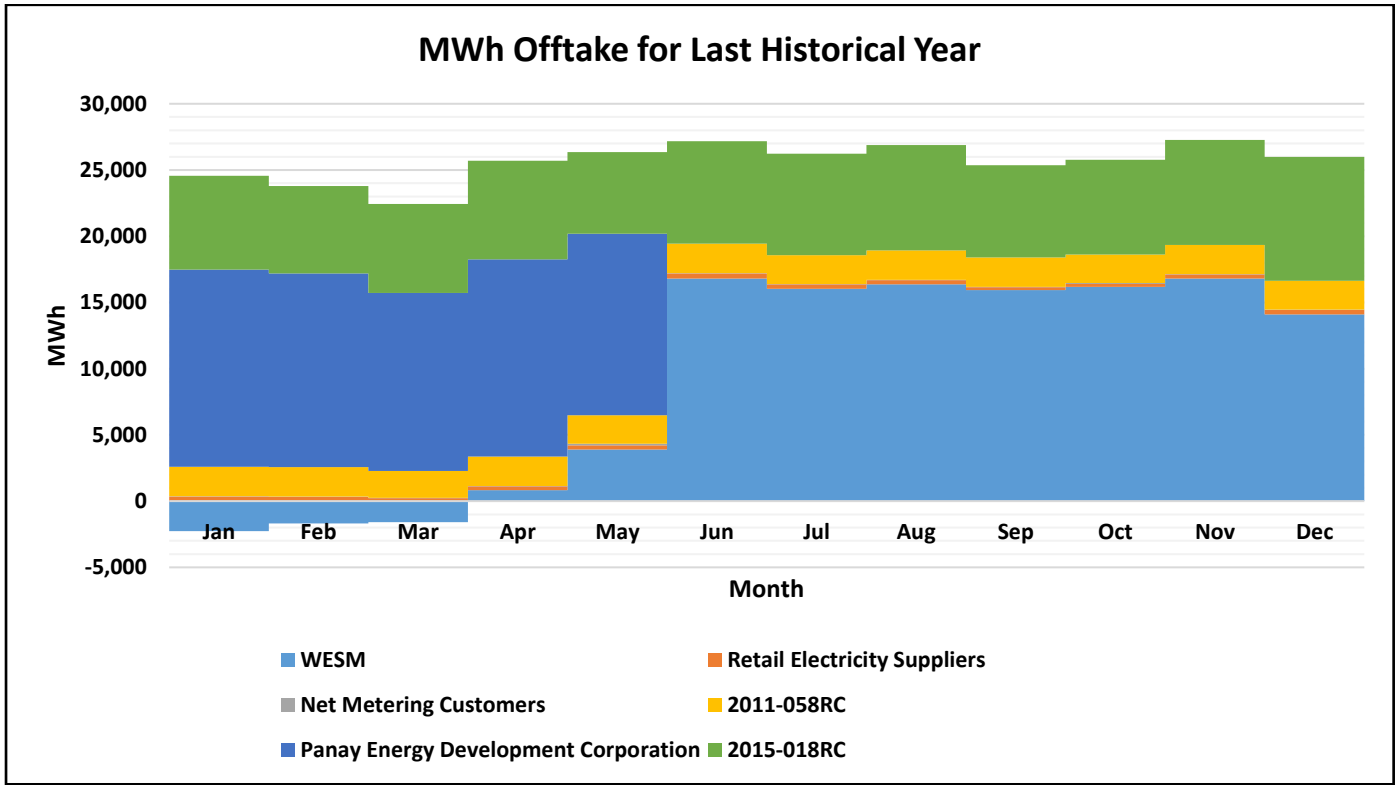
MWh Output increased from the year 2000 to the year 2023 at a rate of 5.63% average each year, but for the past five (5) years, it records an average increase of 5.10%. While MWh System Loss abruptly decreased from 15.06% of 2013 to 10.76% of 2014 with a decrease of 4.30%. During the past five (5) years, NONECO system loss is below the cap, with an average of 11.18%. You may notice that in year 2023, there's a large exposure of energy sales from WESM due to unexpected increase of load of NONECO and expiration of Power contracts.



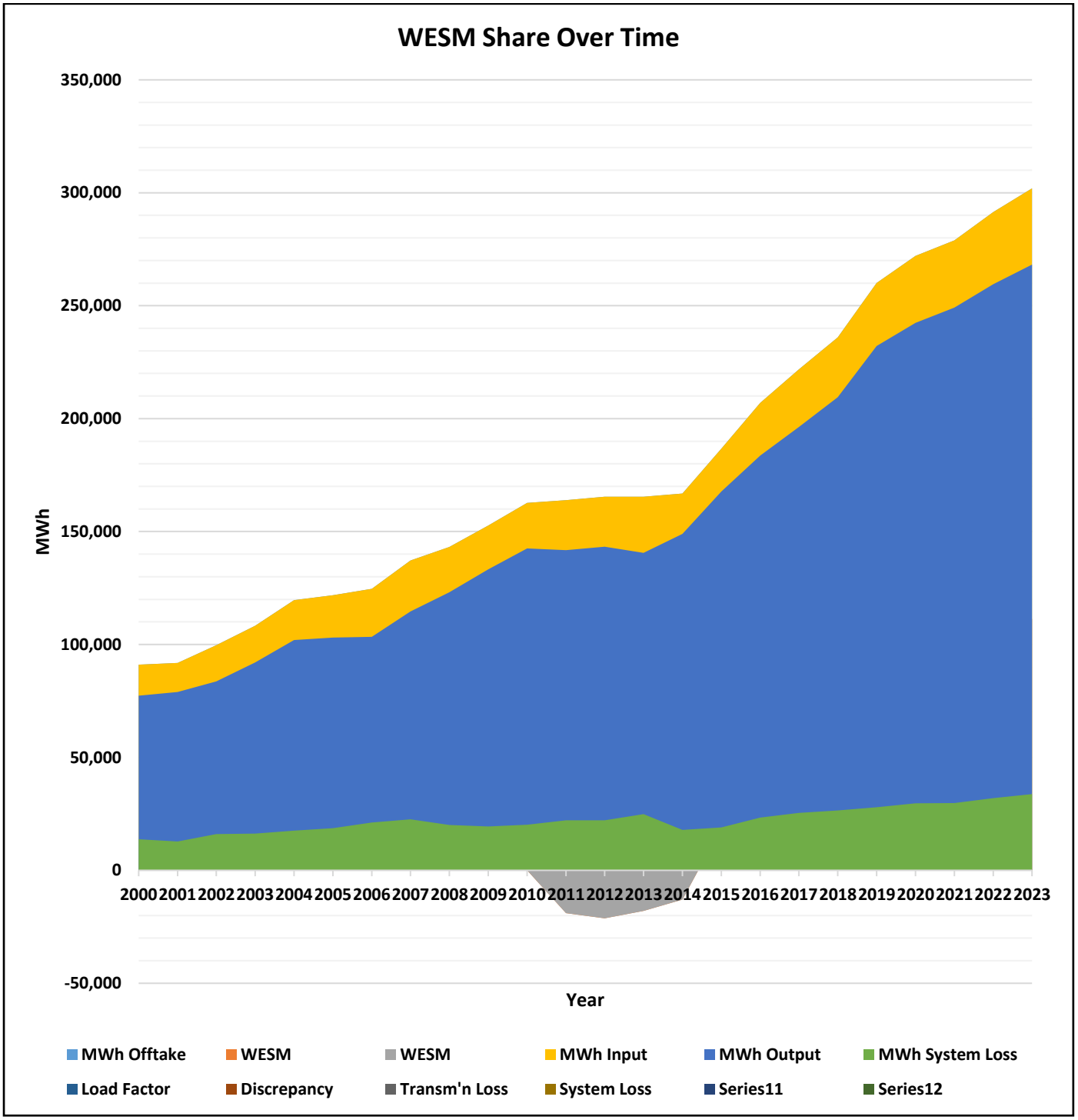
NONECO did not compute the Sub-Transmission Loss because the NGCP Metering Points are in the NONECO's substations. Site-Specific Loss Adjustment (SSLA) will not be considered as a Transmission loss because IEMOP already includes it in the Wholesale Electricity Spot Market (WESM) billing computations.



Residential customers account for the bulk of energy sales at 56.52% due to the high number of connections. In contrast, Commercial and Industrial customers accounted for 34.20% of energy sales despite the low number of connections. The All-Others in MWh Sales of NONECO was already included in the Water Systems due to some correction of NONECO during the implementation of new billing system.



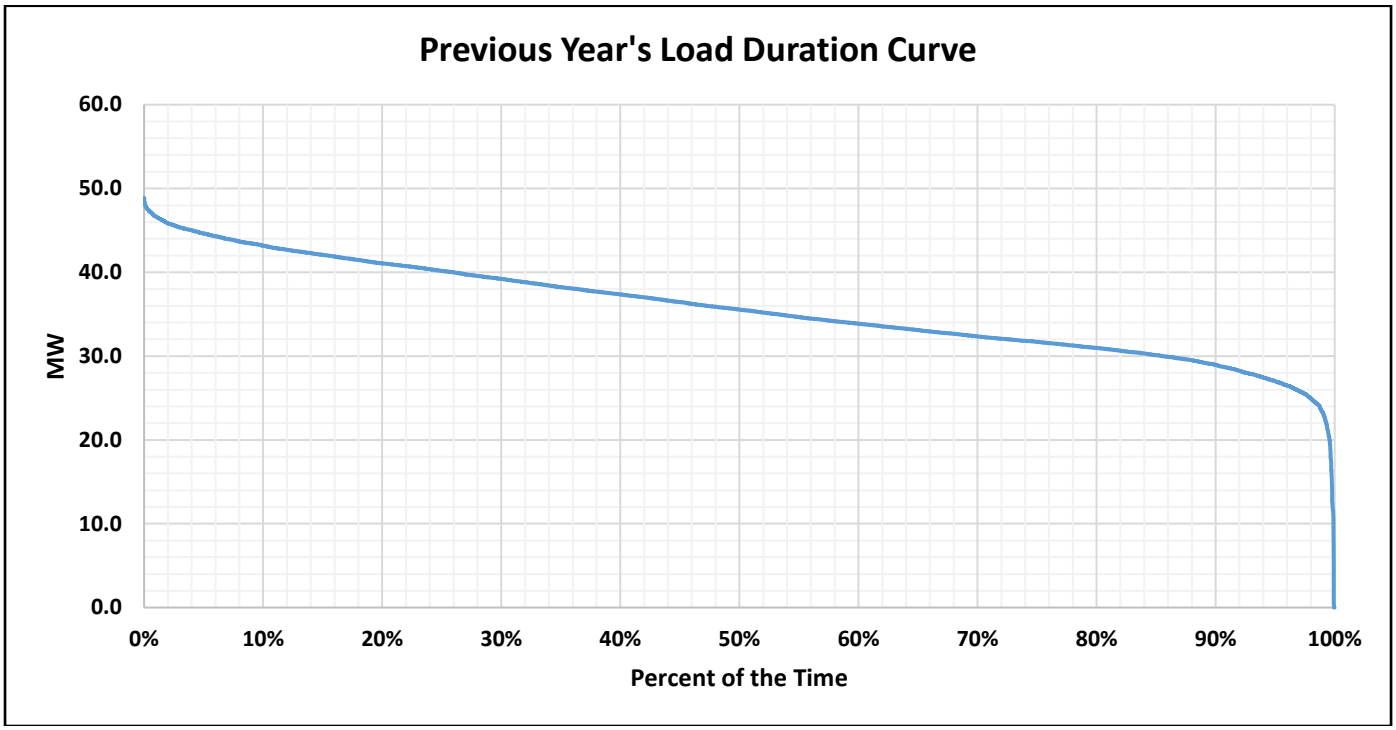
For 2023, the total Offtake for the last historical year is higher than the quantity stipulated in the PSA. The PSA with Panay Energy Development Corporation (PEDC) through Emergency Power Procurement accounts for the bulk of MWh Offtake. Secondly, the exposure to the electricity market due to expiration of contract with PEDC also.



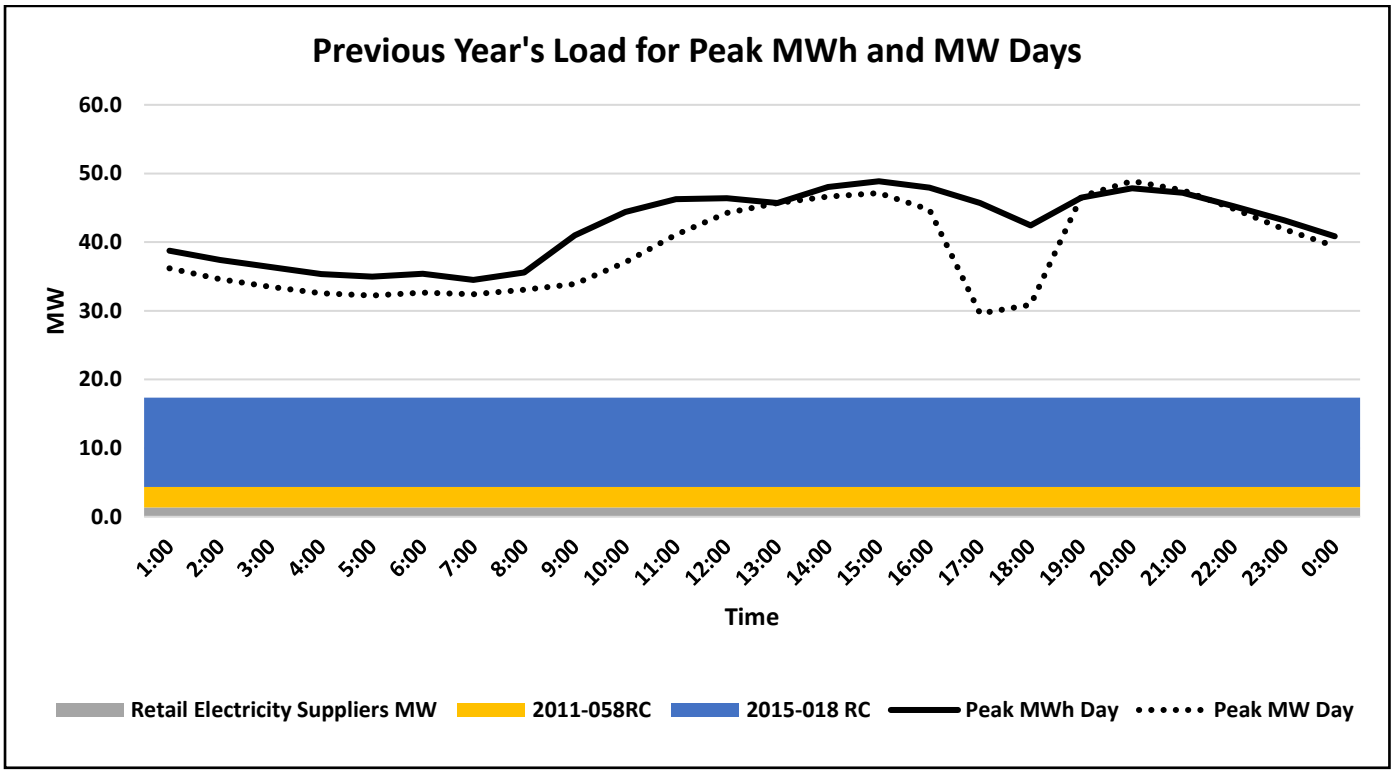
WESM Offtake increased from -18,911 MWh in 2011 to 115,469 MWh in 2023 which consumes 38.24% of the MWh Input due to on-going programs of Local Government Units (LGUs) to develop the way of living consumers primarily in the northern part of Negros. Commercial buildings, revitalization of prawn farms and fishponds, and increasing consumption for residential consumers that improve the system demand. The share of WESM in the total Offtake ranged from 10.09% to 38.24%.

Indicated the graph that there's a negative exposure in WESM from 2011 to 2014 because of the manageable power supply contract in Power Sector Asset and Liability Management (PSALM). During the nominations, zero Bilateral Contract Quantity (BCQ) nomination from 0100H to 0800H intervals and the un-nominated BCQ will be proportionally added to BCQ from 0900H up to 1600H intervals for us, NONECO, will have an opportunity of selling energy in WESM.

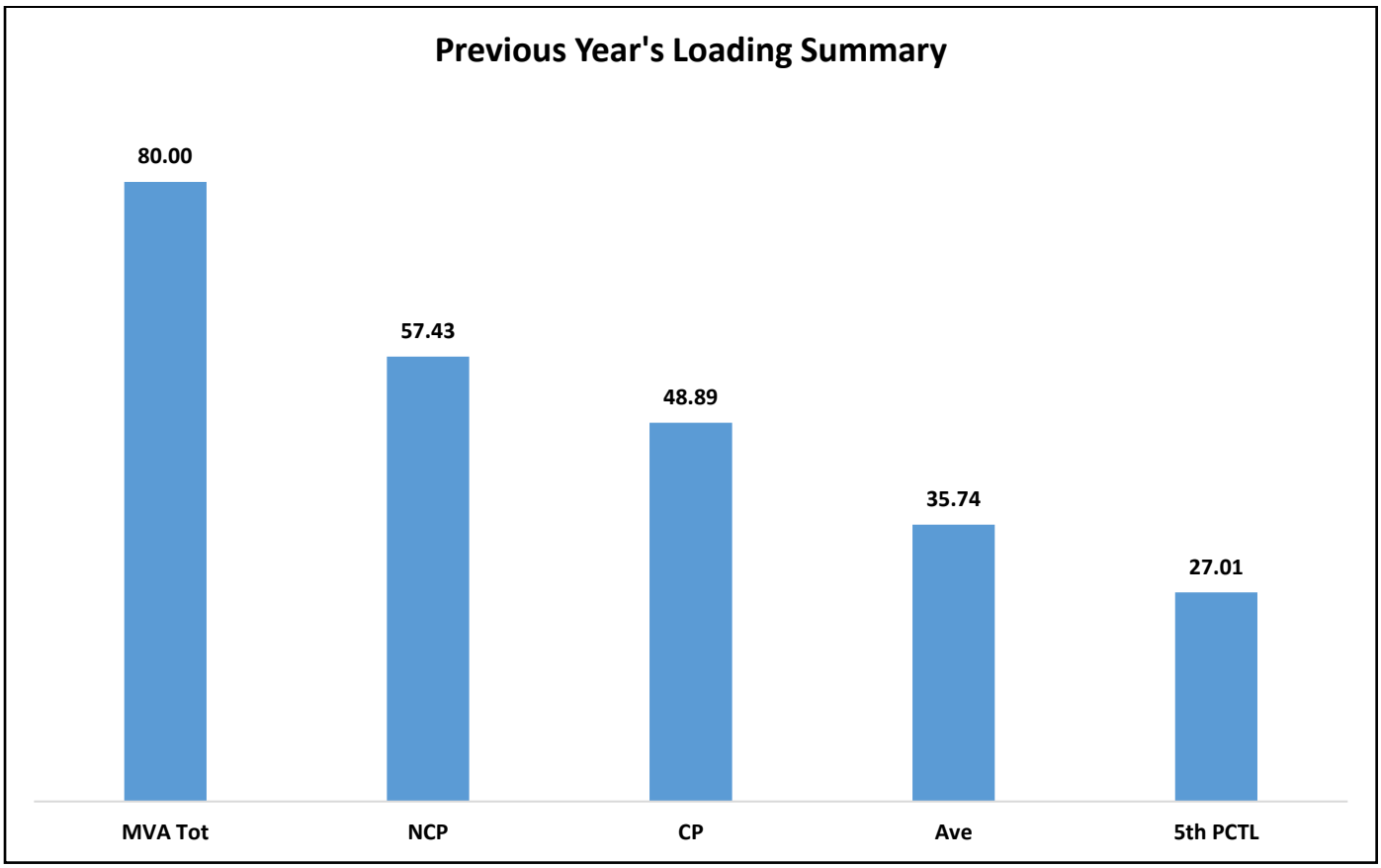
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 0 MW due to the power interruptions. But that is not the actual minimum demand of NONECO. Based on the 5th percentile load, most likely, the minimum is at 27.0128 MW, and the maximum load is 48.89 MW for the last historical year.



Peak MW occurred at 8 o'clock in the evening of 03 November 2023 due to increased demand during the development and the recovery of the economy in Negros when all of the operations commercially, and industries are back to normal. Peak daily MWh occurred on 07 August 2023 due to the increase of demand during the opening of classes. As shown in the Load Curves, the available supply is lower than the Peak Demand.



The Non-coincident Peak Demand is 57.43 MW, which is around 71.78% of the total substation capacity of 80 MVA at a power factor of 94.45%. The load factor or the ratio between the Average Load of 35.74 MW and the Coincident Peak Demand is 73.10%. A safe estimate of the actual minimum load is the fifth percentile load of 27.01 MW, which is 47.04% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
Victorias	15	12.611
Sagay	10	7.978
San Carlos	20	12.292
Escalante	10	7.440
Lopez	5	3.878
Cadiz	10	7.461
Manapla	5	4.207
Toboso	5	1.558

The substations loaded at above 70% are Victorias Substation, Cadiz Substation, Lopez Substation, Sagay Substation, Escalante Substation, and Manapla Substation. This loading problem will be solved by 2024-2025.

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	43.52	16.00	0.00	0.000	1.36	38%	38%	-26.16
	Feb	42.11	16.00	0.00	0.000	1.32	39%	39%	-24.79
	Mar	41.89	16.00	0.00	0.000	1.38	39%	39%	-24.51
	Apr	45.45	16.00	0.00	0.000	1.22	36%	36%	-28.23
	May	47.00	16.00	0.00	0.000	1.41	35%	35%	-29.59
	Jun	47.59	16.00	0.00	0.000	1.34	35%	35%	-30.25
	Jul	46.93	16.00	0.00	0.000	1.31	35%	35%	-29.62
	Aug	47.53	16.00	0.00	0.000	1.38	35%	35%	-30.15
	Sep	47.43	16.00	0.00	0.000	1.19	35%	35%	-30.24
	Oct	47.30	16.00	0.00	0.000	1.60	35%	35%	-29.70
	Nov	49.52	16.00	0.00	0.000	1.59	33%	33%	-31.93
	Dec	47.30	16.00	0.00	0.000	1.76	35%	35%	-29.54
2025	Jan	45.70	16.00	0.00	32.000	1.54	36%	109%	3.83
	Feb	44.22	16.00	0.00	32.000	1.53	37%	112%	5.31
	Mar	44.00	16.00	0.00	32.000	1.58	38%	113%	5.58
	Apr	47.73	16.00	0.00	32.000	1.34	34%	103%	1.61
	May	49.36	16.00	0.00	32.000	1.66	34%	101%	0.30
	Jun	49.98	16.00	0.00	32.000	1.49	33%	99%	-0.49
	Jul	49.29	16.00	0.00	32.000	1.45	33%	100%	0.16
	Aug	49.92	16.00	0.00	32.000	1.52	33%	99%	-0.40
	Sep	49.81	16.00	0.00	32.000	1.21	33%	99%	-0.61
	Oct	49.68	16.00	0.00	32.000	1.87	33%	100%	0.19
	Nov	52.01	16.00	0.00	32.000	1.81	32%	96%	-2.19
	Dec	49.68	16.00	0.00	32.000	2.08	34%	101%	0.40

NONECO Power Supply Plan 2024

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2026	Jan	48.01	13.00	0.00	37.000	1.74	28%	108%	3.72
	Feb	46.46	13.00	0.00	37.000	1.72	29%	112%	5.26
	Mar	46.22	13.00	0.00	37.000	1.78	29%	113%	5.56
	Apr	50.14	13.00	0.00	37.000	1.45	27%	103%	1.31
	May	51.85	13.00	0.00	37.000	1.86	26%	100%	0.01
	Jun	52.51	13.00	0.00	37.000	1.61	26%	98%	-0.90
	Jul	51.78	13.00	0.00	37.000	1.54	26%	100%	-0.24
	Aug	52.44	13.00	0.00	37.000	1.66	26%	98%	-0.78
	Sep	52.33	13.00	0.00	37.000	1.22	25%	98%	-1.11
	Oct	52.19	13.00	0.00	37.000	2.13	26%	100%	-0.05
	Nov	54.64	13.00	0.00	37.000	2.04	25%	95%	-2.60
	Dec	52.19	13.00	0.00	37.000	2.39	26%	100%	0.20
2027	Jan	50.51	13.00	0.00	37.000	1.94	27%	103%	1.43
	Feb	48.87	13.00	0.00	37.000	1.91	28%	106%	3.04
	Mar	48.63	13.00	0.00	37.000	1.99	28%	107%	3.36
	Apr	52.75	13.00	0.00	37.000	1.56	25%	98%	-1.19
	May	54.55	13.00	0.00	37.000	2.06	25%	95%	-2.49
	Jun	55.24	13.00	0.00	37.000	1.73	24%	93%	-3.51
	Jul	54.47	13.00	0.00	37.000	1.64	25%	95%	-2.83
	Aug	55.17	13.00	0.00	37.000	1.80	24%	94%	-3.37
	Sep	55.05	13.00	0.00	37.000	1.24	24%	93%	-3.82
	Oct	54.90	13.00	0.00	37.000	2.40	25%	95%	-2.50
	Nov	57.48	13.00	0.00	37.000	2.27	24%	91%	-5.21
	Dec	54.90	13.00	0.00	37.000	2.71	25%	96%	-2.20
2028	Jan	53.07	13.00	0.00	42.000	2.14	26%	108%	4.07
	Feb	51.35	13.00	0.00	42.000	2.11	26%	112%	5.76
	Mar	51.09	13.00	0.00	42.000	2.19	27%	112%	6.10

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Apr	55.43	13.00	0.00	42.000	1.67	24%	102%	1.25
	May	57.32	13.00	0.00	42.000	2.26	24%	100%	-0.06
	Jun	58.04	13.00	0.00	42.000	1.84	23%	98%	-1.20
	Jul	57.24	13.00	0.00	42.000	1.74	23%	99%	-0.50
	Aug	57.97	13.00	0.00	42.000	1.94	23%	98%	-1.03
	Sep	57.85	13.00	0.00	42.000	1.25	23%	97%	-1.60
	Oct	57.69	13.00	0.00	42.000	2.66	24%	100%	-0.02
	Nov	60.39	13.00	0.00	42.000	2.49	22%	95%	-2.90
	Dec	57.69	13.00	0.00	42.000	3.02	24%	101%	0.33
2029	Jan	56.02	13.00	0.00	42.000	2.34	24%	102%	1.32
	Feb	54.20	13.00	0.00	42.000	2.30	25%	106%	3.10
	Mar	53.93	13.00	0.00	42.000	2.40	25%	107%	3.47
	Apr	58.50	13.00	0.00	42.000	1.79	23%	97%	-1.71
	May	60.50	13.00	0.00	42.000	2.46	22%	95%	-3.04
	Jun	61.26	13.00	0.00	42.000	1.96	22%	93%	-4.30
	Jul	60.41	13.00	0.00	42.000	1.83	22%	94%	-3.58
	Aug	61.19	13.00	0.00	42.000	2.08	22%	93%	-4.11
	Sep	61.05	13.00	0.00	42.000	1.27	22%	92%	-4.79
	Oct	60.88	13.00	0.00	42.000	2.93	22%	95%	-2.96
	Nov	63.74	13.00	0.00	42.000	2.72	21%	90%	-6.02
	Dec	60.89	13.00	0.00	42.000	3.33	23%	96%	-2.55
2030	Jan	58.99	13.00	0.00	42.000	2.54	23%	97%	-1.45
	Feb	57.07	13.00	0.00	42.000	2.50	24%	101%	0.42
	Mar	56.79	13.00	0.00	42.000	2.60	24%	101%	0.81
	Apr	61.60	13.00	0.00	42.000	1.90	22%	92%	-4.71
	May	63.71	13.00	0.00	42.000	2.65	21%	90%	-6.05
	Jun	64.51	13.00	0.00	42.000	2.07	21%	88%	-7.44

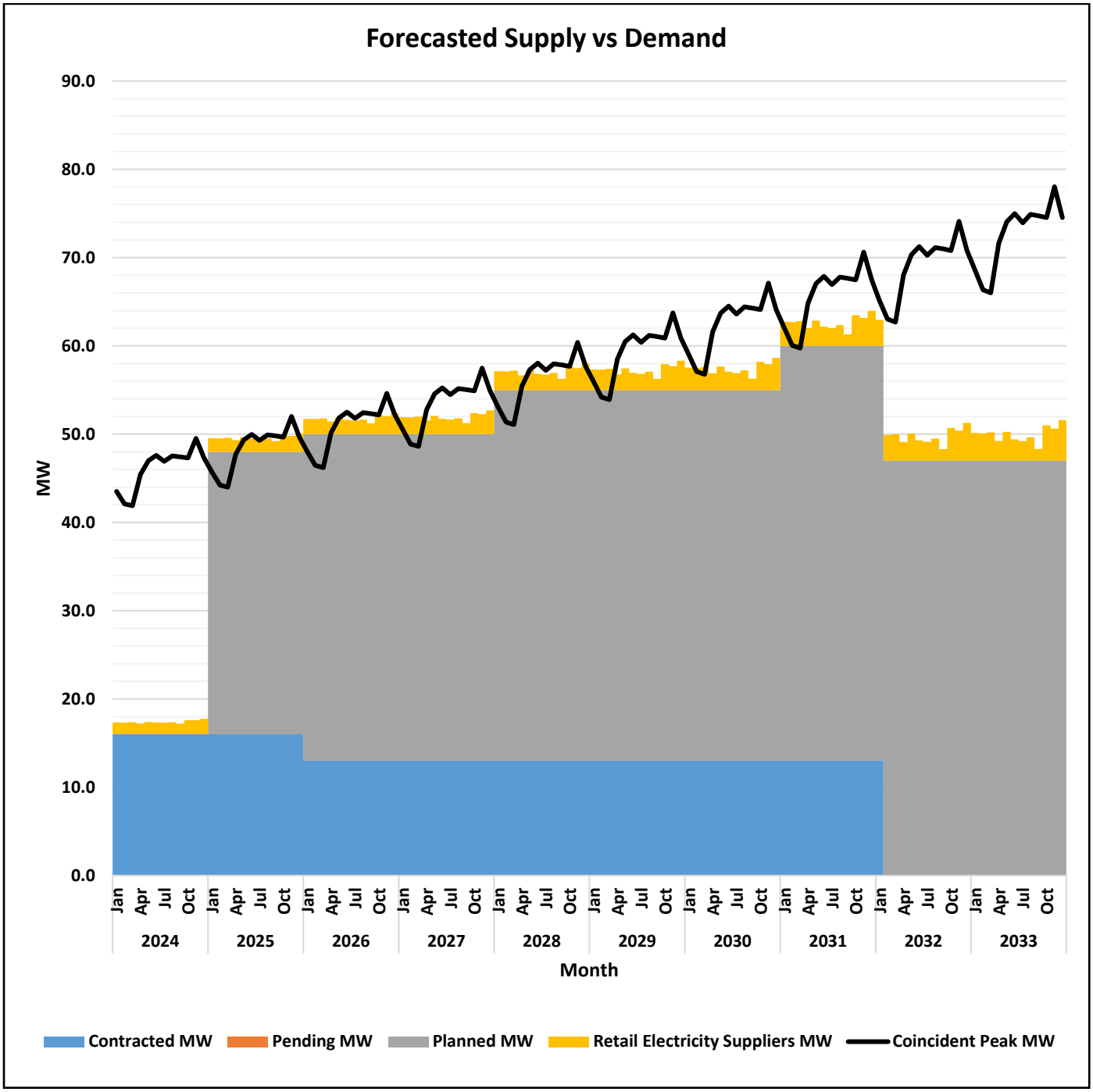
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Jul	63.61	13.00	0.00	42.000	1.93	21%	89%	-6.69
	Aug	64.43	13.00	0.00	42.000	2.21	21%	88%	-7.22
	Sep	64.29	13.00	0.00	42.000	1.28	21%	87%	-8.01
	Oct	64.11	13.00	0.00	42.000	3.19	21%	90%	-5.92
	Nov	67.12	13.00	0.00	42.000	2.95	20%	86%	-9.18
	Dec	64.12	13.00	0.00	42.000	3.65	21%	91%	-5.47
2031	Jan	62.08	13.00	0.00	47.000	2.74	22%	101%	0.67
	Feb	60.06	13.00	0.00	47.000	2.69	23%	105%	2.63
	Mar	59.76	13.00	0.00	47.000	2.80	23%	105%	3.04
	Apr	64.83	13.00	0.00	47.000	2.01	21%	96%	-2.82
	May	67.04	13.00	0.00	47.000	2.85	20%	93%	-4.19
	Jun	67.89	13.00	0.00	47.000	2.19	20%	91%	-5.70
	Jul	66.94	13.00	0.00	47.000	2.02	20%	92%	-4.92
	Aug	67.80	13.00	0.00	47.000	2.35	20%	92%	-5.45
	Sep	67.66	13.00	0.00	47.000	1.30	20%	90%	-6.36
	Oct	67.47	13.00	0.00	47.000	3.46	20%	94%	-4.01
	Nov	70.64	13.00	0.00	47.000	3.17	19%	89%	-7.47
	Dec	67.48	13.00	0.00	47.000	3.96	20%	94%	-3.51
2032	Jan	65.14	13.00	0.00	47.000	2.94	21%	96%	-2.20
	Feb	63.03	0.00	0.00	47.000	2.88	0%	78%	-13.14
	Mar	62.71	0.00	0.00	47.000	3.01	0%	79%	-12.70
	Apr	68.03	0.00	0.00	47.000	2.12	0%	71%	-18.90
	May	70.35	0.00	0.00	47.000	3.05	0%	70%	-20.30
	Jun	71.24	0.00	0.00	47.000	2.31	0%	68%	-21.93
	Jul	70.25	0.00	0.00	47.000	2.12	0%	69%	-21.13
	Aug	71.15	0.00	0.00	47.000	2.49	0%	68%	-21.66
	Sep	71.00	0.00	0.00	47.000	1.31	0%	67%	-22.69

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Oct	70.80	0.00	0.00	47.000	3.73	0%	70%	-20.07
	Nov	74.12	0.00	0.00	47.000	3.40	0%	66%	-23.72
	Dec	70.80	0.00	0.00	47.000	4.28	0%	71%	-19.53
2033	Jan	68.57	0.00	0.00	47.000	3.14	0%	72%	-18.43
	Feb	66.35	0.00	0.00	47.000	3.08	0%	74%	-16.27
	Mar	66.01	0.00	0.00	47.000	3.21	0%	75%	-15.80
	Apr	71.61	0.00	0.00	47.000	2.24	0%	68%	-22.38
	May	74.06	0.00	0.00	47.000	3.25	0%	66%	-23.81
	Jun	74.99	0.00	0.00	47.000	2.42	0%	65%	-25.57
	Jul	73.95	0.00	0.00	47.000	2.22	0%	66%	-24.73
	Aug	74.90	0.00	0.00	47.000	2.63	0%	65%	-25.27
	Sep	74.74	0.00	0.00	47.000	1.33	0%	64%	-26.42
	Oct	74.53	0.00	0.00	47.000	3.99	0%	67%	-23.54
	Nov	78.03	0.00	0.00	47.000	3.63	0%	63%	-27.40
	Dec	74.54	0.00	0.00	47.000	4.59	0%	67%	-22.95

The System Energy requirement for 2024 to 2033 was forecasted using cubic & logarithmic trend forecast method and an equation of Y = aln(t)3 + bln(t)2 + cln(t) + dt-1 + e, in which the statistic is 0.999 with Adjusted R2 of 1.00, and the Mean Absolute Percentage Error (MAPE) is 0.29%. The average historical growth rate of energy purchased for seven (7) years is 5.90% and was forecasted increases to average of 4.93% for the year 2024 to 2033. The increases of demand for energy requirement relies on the augment of number of customers and expansion projects considering the economic development of NONECO franchise area.

Monthly Peak Demand is at its lowest in March and November due to the Lenten season and All Saints and All Souls Day. In general, Peak Demand is theoretically to grow at a rate of 5% annually.

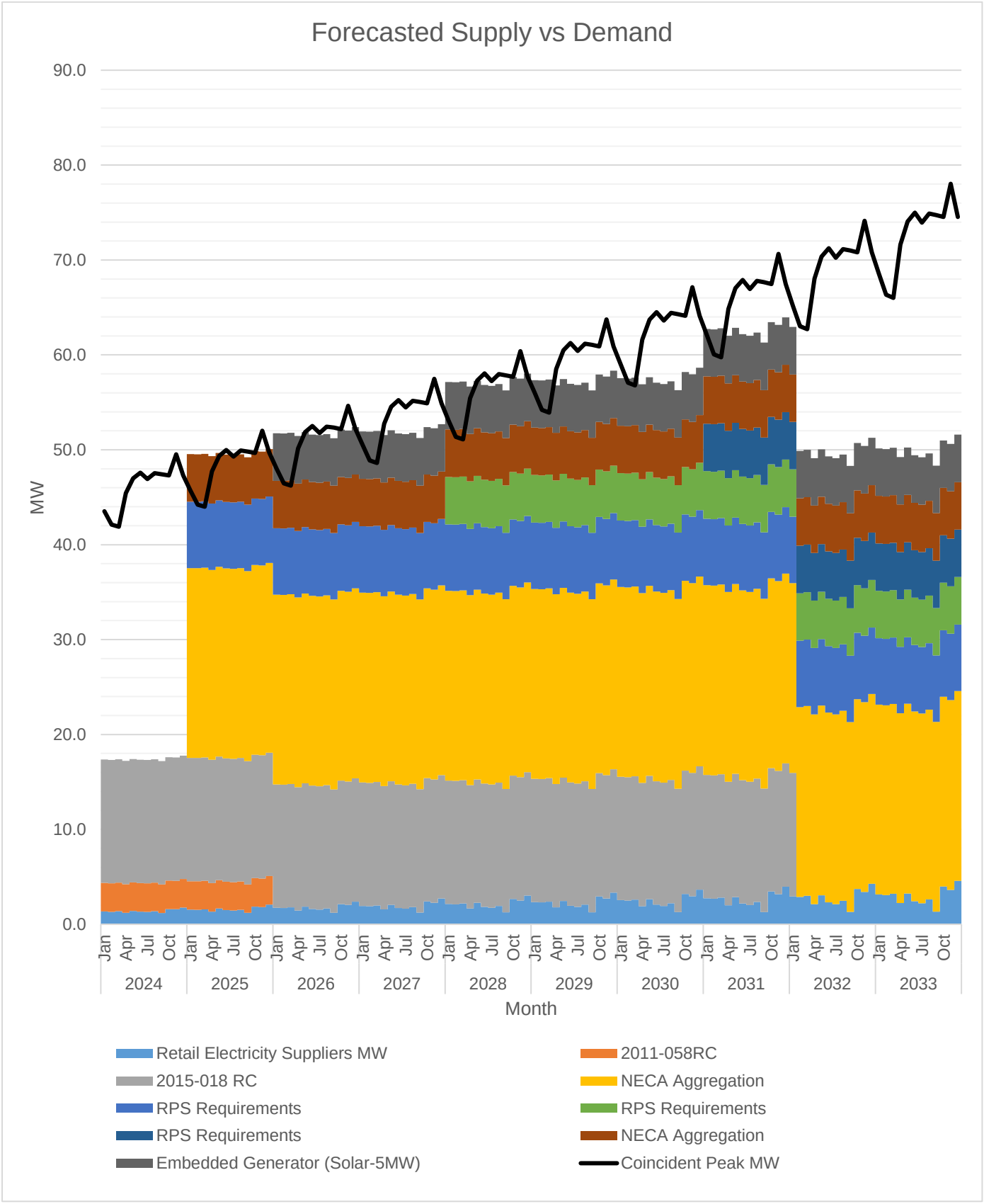
There's a high growth rate when we compare the 2020 historical data and the forecasted data of 2021. The historical data in 2020 was affected by the current pandemic COVID-19 when some of the commercial, industrials, and public building consumers of NONECO closed due to the declaration of Enhanced Community Quarantine (ECQ) by the government.



The available supply is generally below the Peak Demand because the Distribution Utility mandated to have a power supply contract 70% to 90% of its demand to avoid exposure to the electricity market.

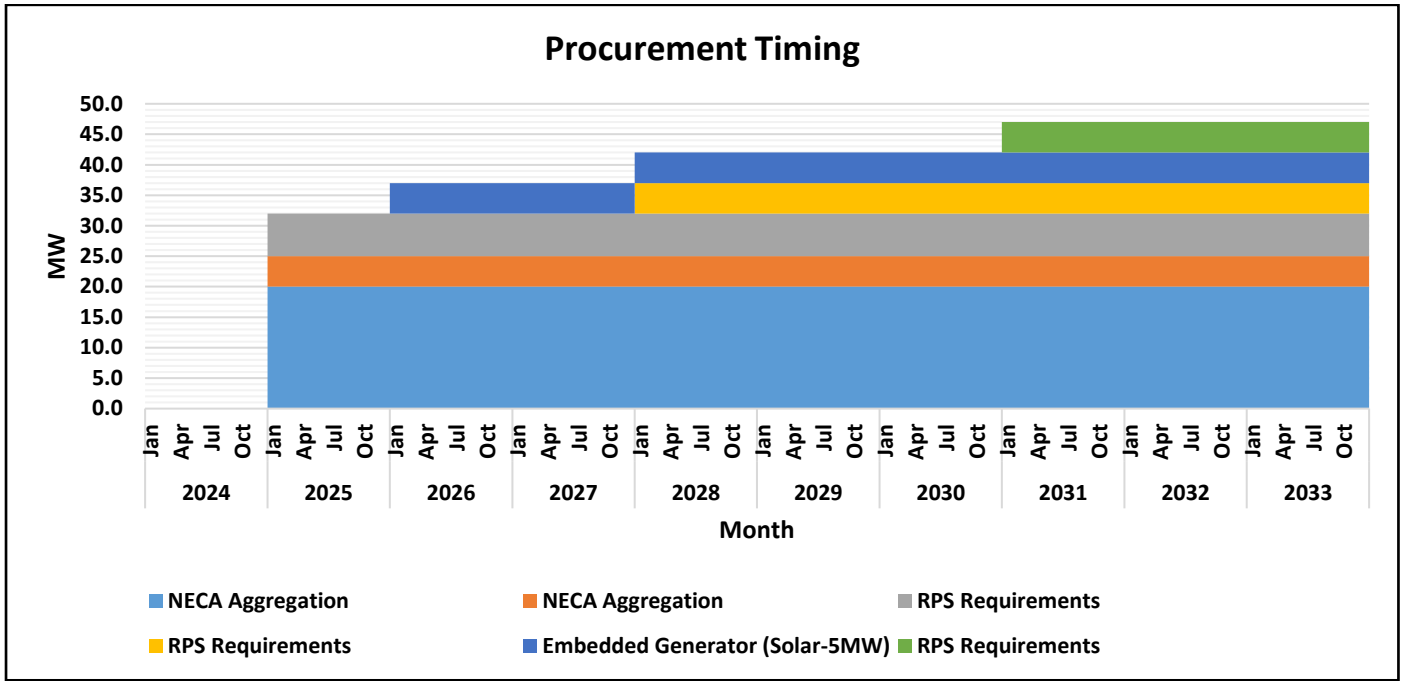
An under-contract is spotted in the year 2023 because of the significant and abrupt increase of NONECO's demand, especially on Residential and Commercial consumers' demand. In which case, it will be covered by the on-going NECA Power Aggregation both for Baseload and Peaking requirements, and planned CSP for RPS Requirements of NONECO involving a 7MW Baseload requirement under 65% load factor and 5MW Intermediate requirements under 25% load factor.

Last year 2022, one of our power suppliers, a baseload contract, was expired, but it was replaced with an Emergency Power Supply Procurement for one (1) year due to delay of NECA Power Aggregation CSP for our baseload and peaking demand, and it started the delivery is on the 2nd quarter of 2022 and expired on May 2023.



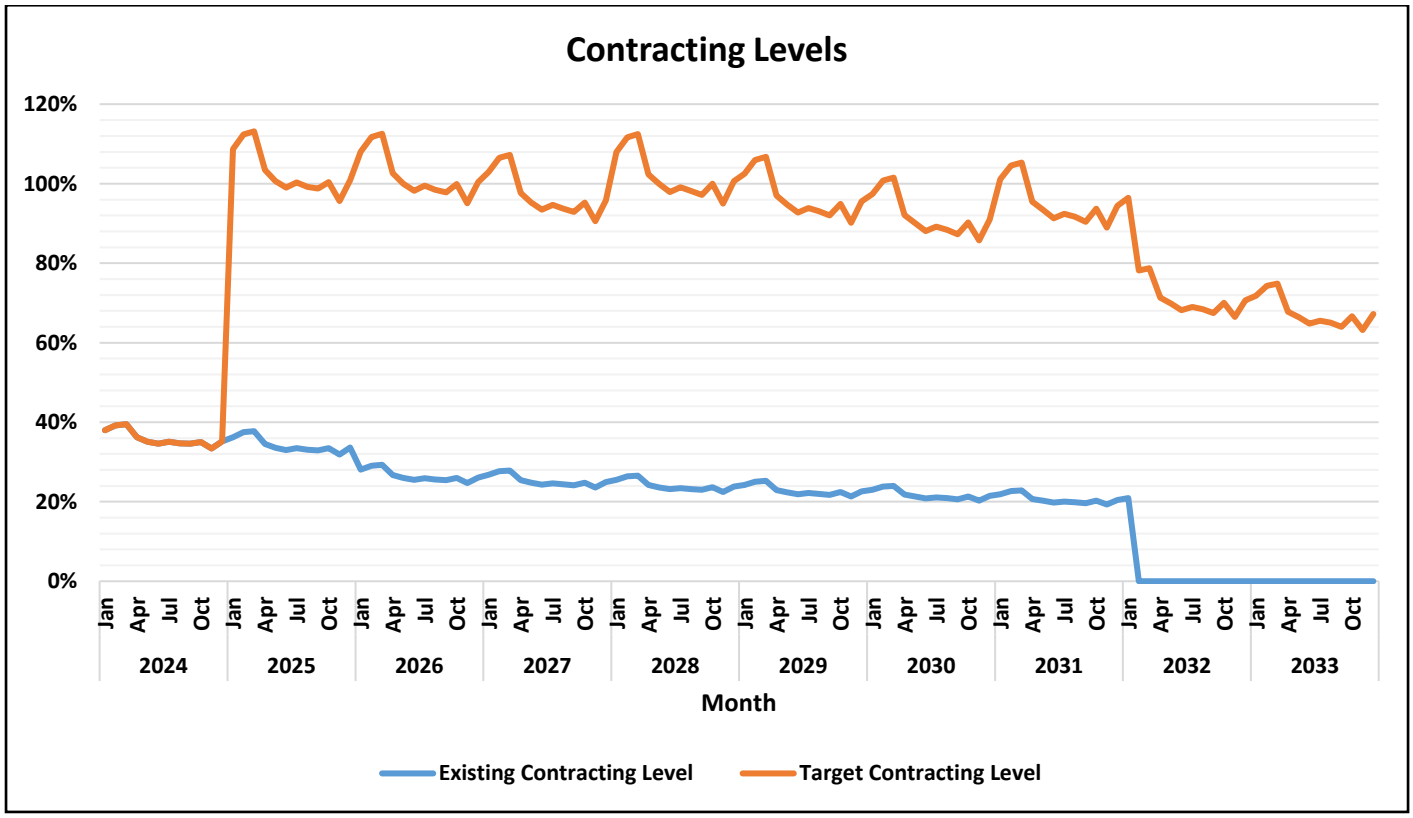
Of the available supply, the largest is 13 MW from Palm Concepcion Power Corporation (PCPC), followed by 3 MW from Green Core Geothermal Inc. (GCGI).

Furthermore, NONECO is in the process of procuring a significant emergency power supply of 20 MW. This is a crucial baseload requirement to meet the substantial demand that has arisen in the electricity market, particularly due to the impending delay of NECA power supply aggregation.

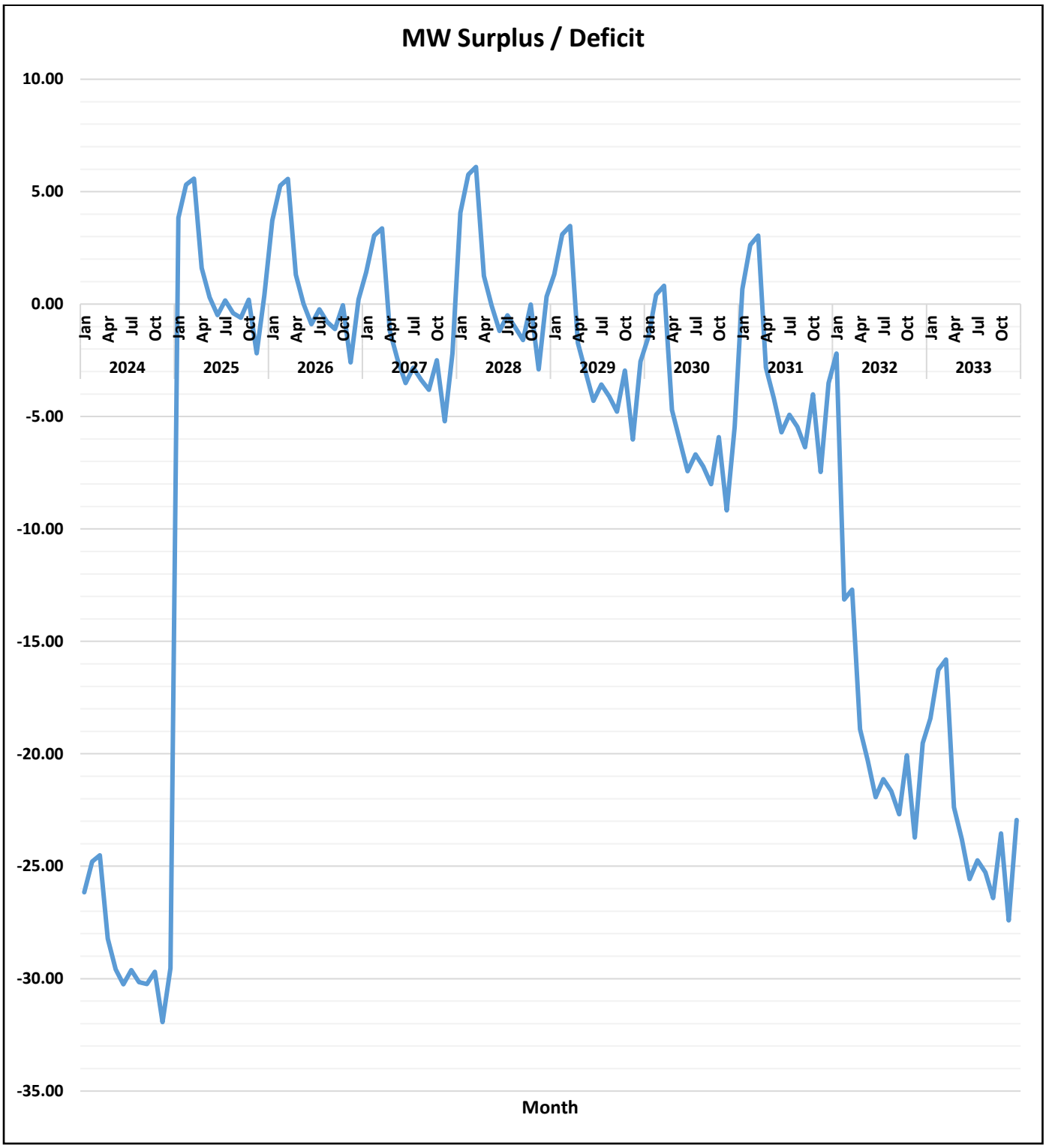


The first wave of supply procurement will be for 20 MW Base and 5 MW Peaking contract which expecting for a delay in conducting of CSP due to revision of committed demand of NECA Aggregation. Followed by a 7 MW planned to be available by January 2025 for our Renewable Portfolio Standard (RPS) requirements.

The second wave is the 5 MW planned Embedded Generator (Solar) and 7 MW Mid-Merit energy requirements to be available by January 2026 for our Renewable Portfolio Standard (RPS) requirements.



Currently, there is average under-contacting by 34.77%. The highest target contracting level is 109.10%, which is expected to occur in March of 2025. The lowest target contracting level is 32.31%, which is expected to occur in November of 2024.



Currently, there is average under-contacting by 30.13MW. The highest deficit is 33.52 MW, which is expected to occur in November of 2024. The lowest deficit is 25.89 MW, which is expected to happen in March 2024.

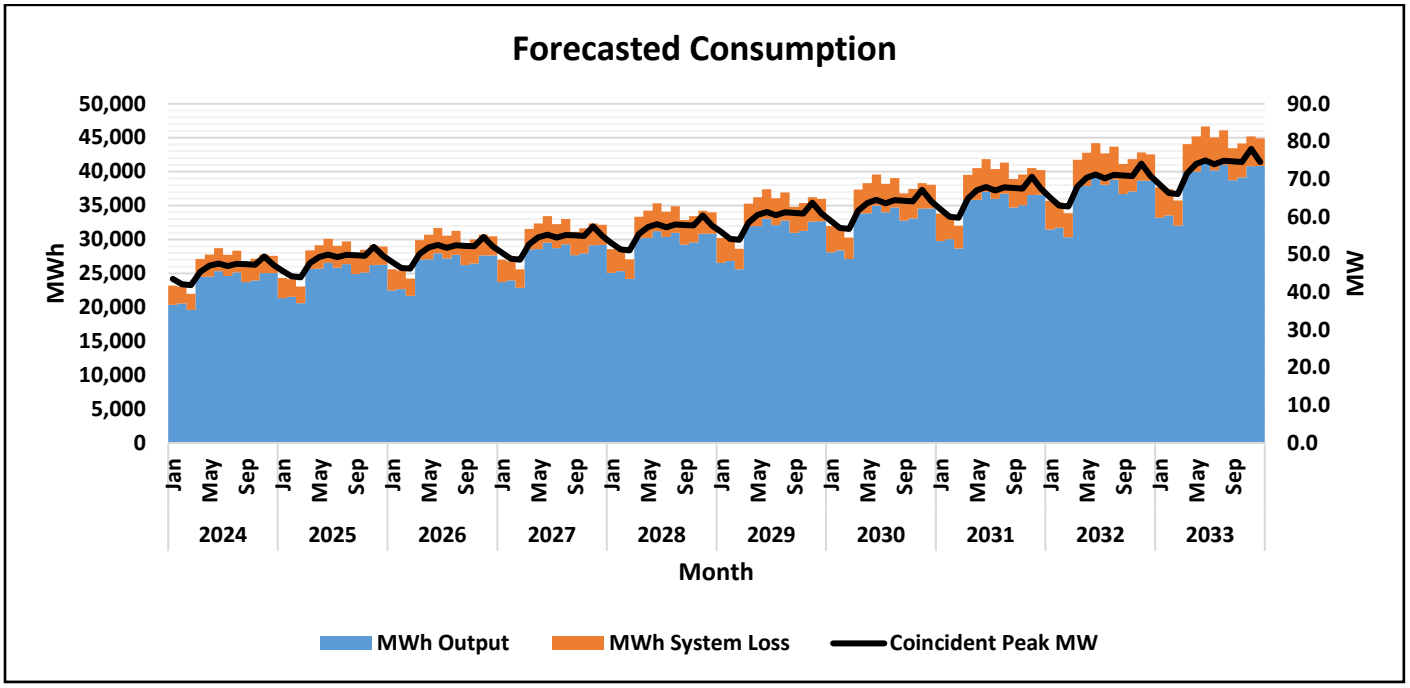
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2024	Jan	23,213	20,365	2,848	0.00%	12.27%
	Feb	23,011	20,563	2,448	0.00%	10.64%
	Mar	21,982	19,634	2,348	0.00%	10.68%
	Apr	27,094	24,486	2,608	0.00%	9.63%
	May	27,799	24,520	3,279	0.00%	11.80%
	Jun	28,712	25,345	3,368	0.00%	11.73%
	Jul	27,710	24,635	3,075	0.00%	11.10%
	Aug	28,353	25,132	3,221	0.00%	11.36%
	Sep	26,704	23,732	2,972	0.00%	11.13%
	Oct	27,156	23,976	3,180	0.00%	11.71%
	Nov	27,797	25,017	2,780	0.00%	10.00%
	Dec	27,609	25,040	2,569	0.00%	9.30%
2025	Jan	24,336	21,351	2,985	0.00%	12.27%
	Feb	24,125	21,559	2,566	0.00%	10.64%
	Mar	23,047	20,587	2,461	0.00%	10.68%
	Apr	28,408	25,675	2,734	0.00%	9.62%
	May	29,146	25,709	3,437	0.00%	11.79%
	Jun	30,102	26,573	3,530	0.00%	11.73%
	Jul	29,052	25,829	3,223	0.00%	11.09%
	Aug	29,727	26,351	3,376	0.00%	11.36%
	Sep	28,000	24,884	3,115	0.00%	11.13%
	Oct	28,473	25,140	3,333	0.00%	11.71%
	Nov	29,144	26,231	2,913	0.00%	10.00%
	Dec	28,946	26,254	2,692	0.00%	9.30%
2026	Jan	25,616	22,479	3,137	0.00%	12.24%
	Feb	25,394	22,699	2,696	0.00%	10.61%
	Mar	24,261	21,675	2,585	0.00%	10.66%
	Apr	29,905	27,033	2,872	0.00%	9.60%
	May	30,679	27,068	3,611	0.00%	11.77%
	Jun	31,686	27,977	3,708	0.00%	11.70%
	Jul	30,581	27,195	3,386	0.00%	11.07%
	Aug	31,291	27,744	3,547	0.00%	11.34%
	Sep	29,474	26,201	3,273	0.00%	11.10%
	Oct	29,972	26,470	3,501	0.00%	11.68%
	Nov	30,679	27,618	3,061	0.00%	9.98%
	Dec	30,470	27,642	2,829	0.00%	9.28%
2027	Jan	27,029	23,729	3,300	0.00%	12.21%
	Feb	26,798	23,961	2,836	0.00%	10.58%
	Mar	25,603	22,883	2,720	0.00%	10.62%
	Apr	31,561	28,539	3,022	0.00%	9.58%
	May	32,376	28,576	3,800	0.00%	11.74%
	Jun	33,436	29,534	3,902	0.00%	11.67%
	Jul	32,271	28,708	3,563	0.00%	11.04%
	Aug	33,021	29,289	3,732	0.00%	11.30%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Sep	31,106	27,662	3,444	0.00%	11.07%
	Oct	31,630	27,946	3,684	0.00%	11.65%
	Nov	32,377	29,156	3,221	0.00%	9.95%
	Dec	32,157	29,180	2,976	0.00%	9.26%
2028	Jan	28,572	25,096	3,476	0.00%	12.16%
	Feb	28,329	25,342	2,987	0.00%	10.54%
	Mar	27,067	24,203	2,865	0.00%	10.58%
	Apr	33,368	30,185	3,182	0.00%	9.54%
	May	34,225	30,224	4,002	0.00%	11.69%
	Jun	35,345	31,236	4,109	0.00%	11.63%
	Jul	34,116	30,363	3,752	0.00%	11.00%
	Aug	34,909	30,978	3,930	0.00%	11.26%
	Sep	32,885	29,258	3,627	0.00%	11.03%
	Oct	33,438	29,558	3,880	0.00%	11.60%
	Nov	34,229	30,838	3,392	0.00%	9.91%
	Dec	33,997	30,863	3,134	0.00%	9.22%
2029	Jan	30,222	26,561	3,661	0.00%	12.11%
	Feb	29,969	26,822	3,146	0.00%	10.50%
	Mar	28,635	25,618	3,017	0.00%	10.54%
	Apr	35,303	31,951	3,352	0.00%	9.50%
	May	36,205	31,990	4,215	0.00%	11.64%
	Jun	37,389	33,061	4,328	0.00%	11.58%
	Jul	36,090	32,137	3,953	0.00%	10.95%
	Aug	36,929	32,790	4,140	0.00%	11.21%
	Sep	34,791	30,971	3,820	0.00%	10.98%
	Oct	35,375	31,288	4,087	0.00%	11.55%
	Nov	36,213	32,640	3,573	0.00%	9.87%
	Dec	35,968	32,666	3,302	0.00%	9.18%
2030	Jan	31,974	28,118	3,855	0.00%	12.06%
	Feb	31,708	28,395	3,313	0.00%	10.45%
	Mar	30,298	27,120	3,178	0.00%	10.49%
	Apr	37,355	33,825	3,530	0.00%	9.45%
	May	38,306	33,867	4,439	0.00%	11.59%
	Jun	39,557	34,999	4,558	0.00%	11.52%
	Jul	38,184	34,021	4,163	0.00%	10.90%
	Aug	39,072	34,713	4,360	0.00%	11.16%
	Sep	36,812	32,788	4,023	0.00%	10.93%
	Oct	37,428	33,124	4,304	0.00%	11.50%
	Nov	38,317	34,555	3,762	0.00%	9.82%
	Dec	38,059	34,582	3,477	0.00%	9.14%
2031	Jan	33,807	29,749	4,058	0.00%	12.00%
	Feb	33,529	30,042	3,487	0.00%	10.40%
	Mar	32,041	28,696	3,345	0.00%	10.44%
	Apr	39,506	35,790	3,716	0.00%	9.41%

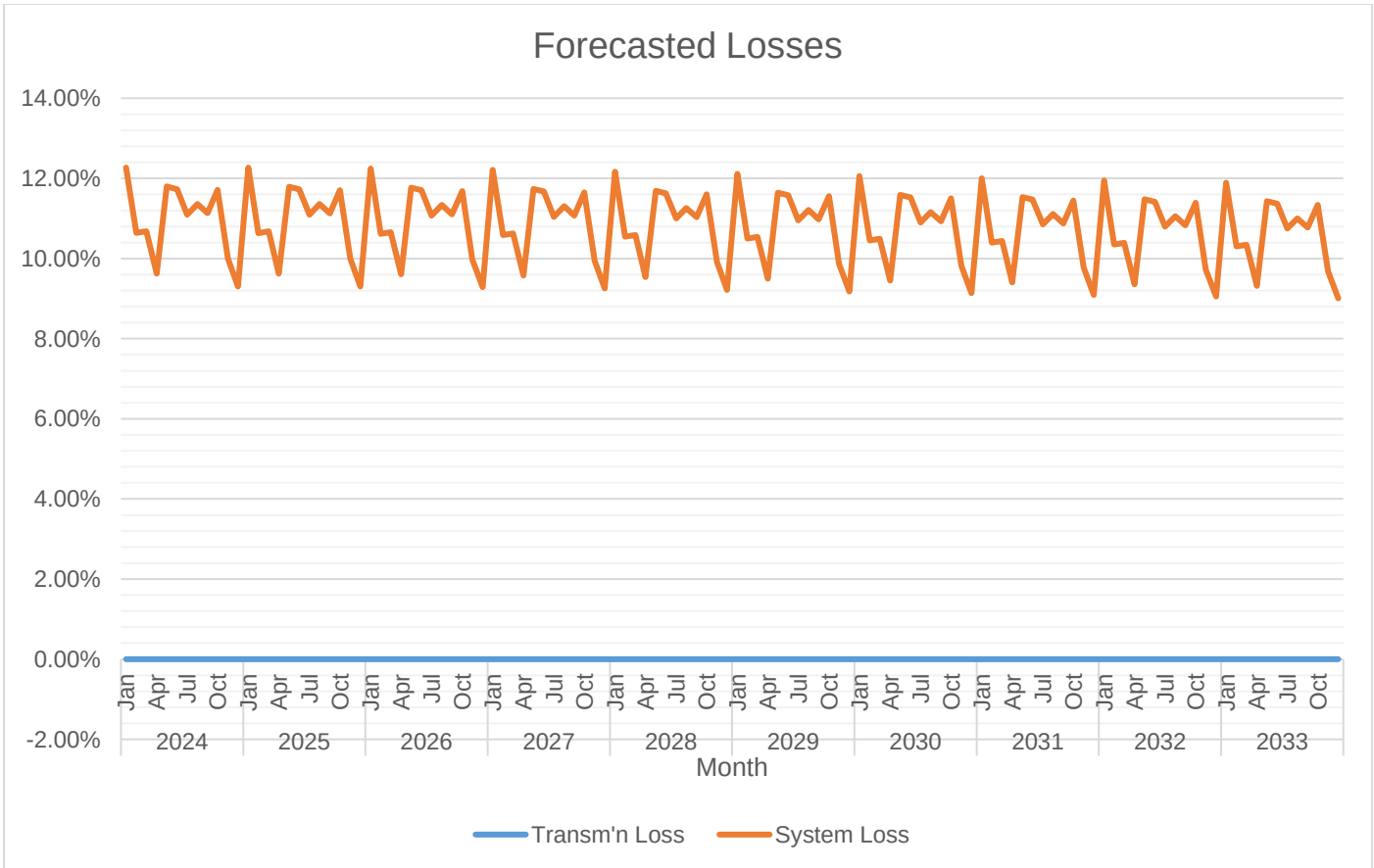
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	May	40,506	35,833	4,672	0.00%	11.53%
	Jun	41,827	37,030	4,798	0.00%	11.47%
	Jul	40,377	35,996	4,381	0.00%	10.85%
	Aug	41,318	36,729	4,589	0.00%	11.11%
	Sep	38,930	34,695	4,235	0.00%	10.88%
	Oct	39,579	35,049	4,530	0.00%	11.45%
	Nov	40,522	36,562	3,960	0.00%	9.77%
	Dec	40,249	36,589	3,660	0.00%	9.09%
2032	Jan	35,721	31,453	4,268	0.00%	11.95%
	Feb	35,431	31,763	3,668	0.00%	10.35%
	Mar	33,858	30,341	3,517	0.00%	10.39%
	Apr	41,750	37,842	3,908	0.00%	9.36%
	May	42,801	37,887	4,914	0.00%	11.48%
	Jun	44,197	39,151	5,046	0.00%	11.42%
	Jul	42,666	38,059	4,608	0.00%	10.80%
	Aug	43,660	38,834	4,826	0.00%	11.05%
	Sep	41,138	36,685	4,453	0.00%	10.83%
	Oct	41,823	37,059	4,764	0.00%	11.39%
	Nov	42,822	38,657	4,165	0.00%	9.73%
	Dec	42,535	38,686	3,849	0.00%	9.05%
2033	Jan	37,697	33,213	4,484	0.00%	11.89%
	Feb	37,395	33,541	3,853	0.00%	10.30%
	Mar	35,737	32,041	3,695	0.00%	10.34%
	Apr	44,069	39,964	4,106	0.00%	9.32%
	May	45,173	40,010	5,162	0.00%	11.43%
	Jun	46,644	41,343	5,301	0.00%	11.36%
	Jul	45,031	40,190	4,841	0.00%	10.75%
	Aug	46,080	41,010	5,070	0.00%	11.00%
	Sep	43,421	38,743	4,679	0.00%	10.78%
	Oct	44,143	39,137	5,005	0.00%	11.34%
	Nov	45,199	40,824	4,375	0.00%	9.68%
	Dec	44,897	40,853	4,044	0.00%	9.01%

The System Energy requirement for 2024 to 2033 was forecasted using cubic & logarithmic trend forecast method and an equation of Y = aln(t)3 + bln(t)2 + cln(t) + dt-1 + e, in which the statistic is 0.999 with Adjusted R2 of 1.00, and the Mean Absolute Percentage Error (MAPE) is 0.29%. The average historical growth rate of energy purchased for seven (7) years is 5.90% and was forecasted increases to average of 5.81% for the year 2024 to 2033.

System Loss was calculated through a Load Flow Study conducted by the Engineers specialized in Load Flow Analysis using the Distribution System Application Software Package 1.0 of PowerSolv, Inc. Based on the same study, the Distribution System can adequately convey electricity to customers.



MWh Output is expected to grow at a rate of 5.81% annually and targeting system loss of 10.91% in the year 2033, with an average decrease per year of 0.12%. Moreover, NONECO is compliant with the feeder loss cap as of 2023, which 10.25% as per ERC Resolution No. 20, Series of 2017.



NONECO did not compute the Transmission Loss because the NGCP Metering Points are located in the substations. Site-Specific Loss Adjustment (SSLA) will not be considered as a Transmission loss because IEMOP includes it in the Wholesale Electricity Spot Market (WESM) billing computations. System Loss is expected to range from 9.23% to 12.23%.

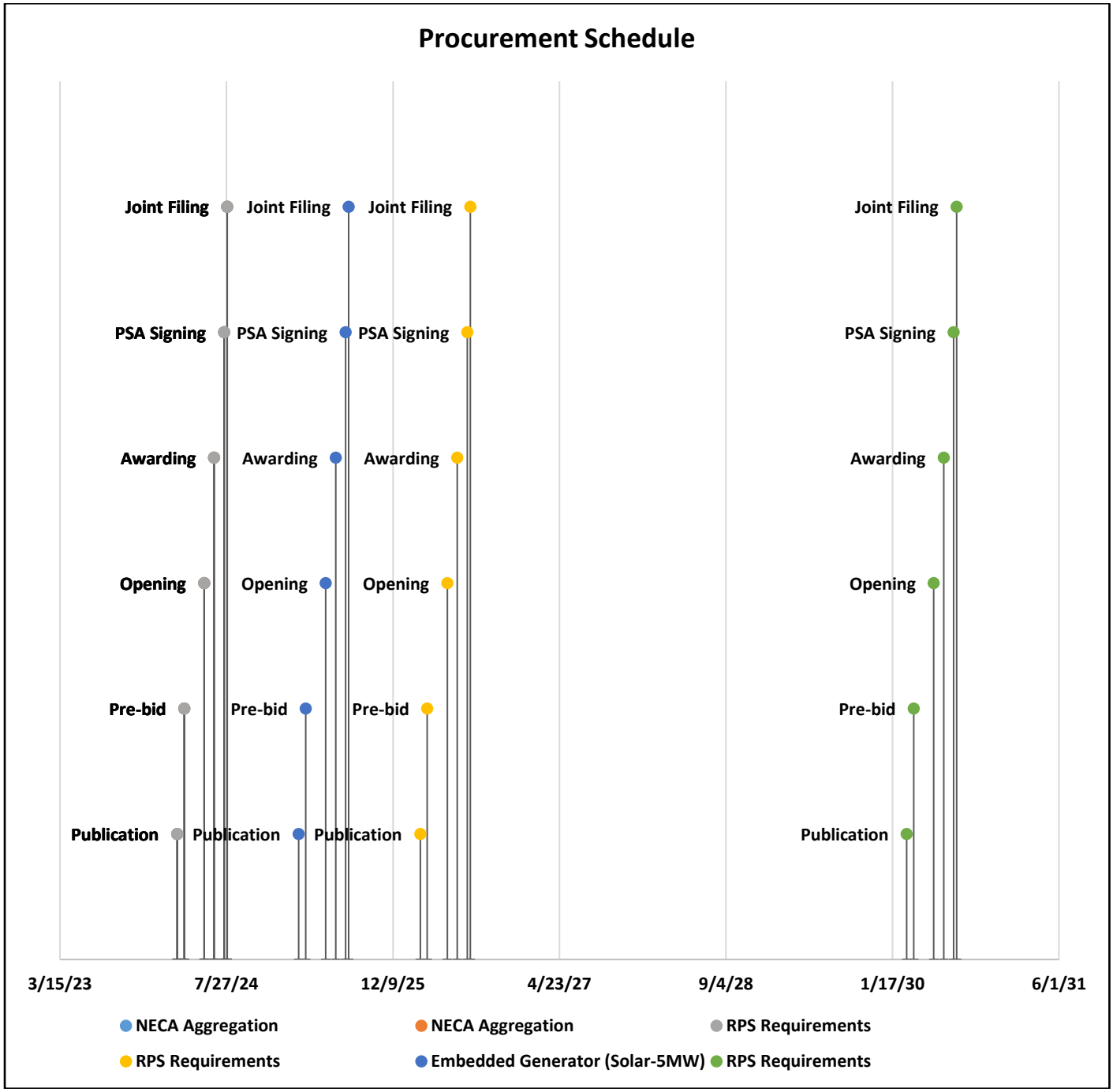
Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2011-058RC	Base	Green Core Geothermal, Inc.	3.00	26,280	12/26/2010	12/25/2025
2015-018 RC	Base	Palm Concepcion Power Corporation	13.00	85,848	1/26/2017	1/25/2032

The PSA with 3 MW Base contract filed with ERC under Case No. 2011-058 RC was procured through negotiation. It was selected to provide for base requirements due to the expiration of CSEE to National Power Corporation (NPC) last 25 December 2010. Historically, the utilization of the PSA is 8.78%. The actual billed overall monthly charge under the PSA ranged from 6.1501 P/kWh in the same period.

The PSA with 13 MW Base and Intermediate contract with ERC Case No. 2015-018 RC was procured through the Competitive Selection Process. Historically, the utilization of the PSA is 29.91%. The actual billed overall monthly charge under the PSA ranged from 8.4072 P/kWh to 14.3970 P/KWh, inclusive of VAT, in the same period for baseload contract and raged from 8.2983 P/kWh to 17.6423, inclusive of VAT, P/KWh in the same period for the intermediate contract.

	NECA Aggregation	NECA Aggregation	RPS Requirements	RPS Requirements	Embedded Generator (Solar-5MW)	RPS Requirements
Type	Base	Peaking	Base	Base	Peaking	Base
Minimum MW	20.00	5.00	7.00	5.00	5.00	5.00
Minimum MWh/yr	173,200	7,300	34,292	26,280	10,950	26,280
PSA Start	12/26/2024	12/26/2024	12/26/2024	12/26/2027	12/26/2025	12/26/2030
PSA End	12/25/2039	12/25/2039	12/25/2034	12/26/2037	12/25/2046	12/25/2040
Publication	3/1/2024	3/1/2024	3/1/2024	3/1/2026	3/1/2025	3/1/2030
Pre-bid	3/22/2024	3/22/2024	3/22/2024	3/22/2026	3/22/2025	3/22/2030
Opening	5/21/2024	5/21/2024	5/21/2024	5/21/2026	5/21/2025	5/21/2030
Awarding	6/20/2024	6/20/2024	6/20/2024	6/20/2026	6/20/2025	6/20/2030
PSA Signing	7/20/2024	7/20/2024	7/20/2024	7/20/2026	7/20/2025	7/20/2030
Joint Filing	7/29/2024	7/29/2024	7/29/2024	7/29/2026	7/29/2025	7/29/2030



For the procurement of 20 MW Based Load and 5 MW Peaking of supply is planned to be available in June 2022 was delayed due to unforeseen circumstances but it will be dispatched in January 2025, the first publication or launch of CSP will be in March of 2024. Joint filing will be on July of 2024, or 150 days later, per DOE Department Circular No. DC2023-06-0021 and ERC Resolution No. 16, Series of 2023.

Despite the delay in NECA Aggregation CSP, NONECO will execute an Emergency Power Supply Procurement this February of 2024 to compensate for the uncontracted portion of NONECO's demand.

For the first procurement of 7 MW baseload of supply for our Renewable Portfolio Standard (RPS) requirements, which is planned to be available on January of 2025, the first publication or launch of CSP will be in March of 2024. Joint filing will be on July of 2024, or 150 days later, per DOE Department Circular No. DC2023-06-0021 and ERC Resolution No. 16, Series of 2023.

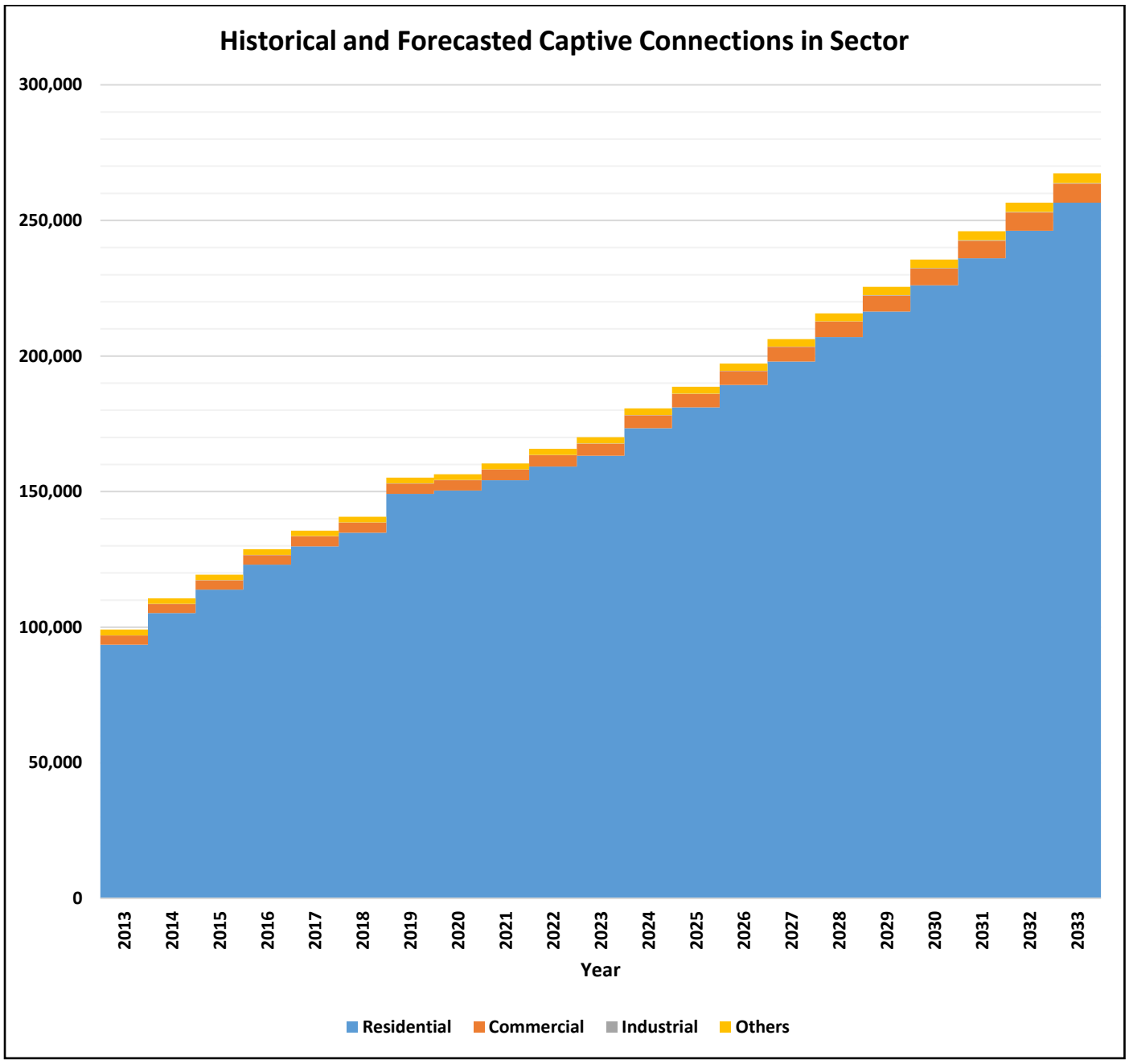
NONECO has an-going negotiation for the Unsolicited Proposal from Victorias Milling Company. A 5 MW peak of supply for our Renewable Portfolio Standard (RPS) requirements, which is planned to be available in January of 2026. This plant will be embedded to the distribution line of NONECO and will be filled to DOE for the COE-CSP. Joint filing will be on July of 2025, or 150 days later, per DOE Department Circular No. DC2023-06-0021 and ERC Resolution No. 16, Series of 2023.

For the second procurement of 5 MW intermediate of supply for our Renewable Portfolio Standard (RPS) requirements, which is planned to be available on January of 2028, the first publication or launch of CSP will be in March of 2026. Joint filing will be on July of 2026, or 150 days later, per DOE Department Circular No. DC2023-06-0021 and ERC Resolution No. 16, Series of 2023.

For the third procurement of 5 MW intermediate of supply for our Renewable Portfolio Standard (RPS) requirements, which is planned to be available on January of 2031, the first publication or launch of CSP will be in March of 2030. Joint filing will be on July of 2030, or 150 days later, per DOE Department Circular No. DC2023-06-0021 and ERC Resolution No. 16, Series of 2023.

For the fourth procurement of 5 MW embedded solar generator of supply for our Renewable Portfolio Standard (RPS) requirements, which is planned to be available on January of 2026, the first publication or launch of CSP will be in March of 2026. Joint filing will be on July of 2026, or 150 days later, per DOE Department Circular No. DC2023-06-0021 and ERC Resolution No. 16, Series of 2023.

Captive Customer Connections



The number of Residential connections is forecasted to grow at a rate of 5.21% annually. Said customer class is expected to account for 51% of the total consumption.

Also, the Commercial connections will grow at a rate of 3.75% annually with a 20% total consumption share.